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INSIDE DOPE

by GEORGE F. TAUBENECK

The Underpaid and the Grafters
The OPA Nightmare
Figures Do Lie
Red Ink 'Planned'
Eyewitness Account
We Bear Witness:
Lest We Forget
More Direct Testimony
'Policy' Is Politics

The Underpaid and the Grafters

In all fairness, it must be admitted that there are two types of government servants: (1) those who are worth far more than they are paid, and (2) the grafters and time-wasters and job-stretcher-outers.

Unfortunately, the latter were in the majority during World War II. Again, in all fairness, it must be admitted that in some other walks of life they can be found at times, too.) The difference is that under the government big tent the time-wasters are nurtured, whereas under most forms of free business enterprise they are weeded out and eliminated.

Government salaries for men who do important jobs are notoriously inadequate. That's why dollar-a-year experts are impressed into service during wartime; and why superpatriots sacrifice much higher income potentials in business and the professions to assume full-time duties in Washington both in wartime and during the uneasy intervals between wars.

But these are the exceptions. Your typical bureaucrat gets much more from the taxpayers than he contributes to them. If he's a department chief, his income rises as his department expands; so he's anxious to enlarge the size of his department by hiring supernumerary assistants who not only aren't needed, but who jump heads.

This is one explanation for the Great Washington Paper Passing Game. When a bureaucratic department head bosses 100 assistants, he's paid a larger salary than a counterpart who commands only 60 assistants, under Civil Service regulations. Human nature being what it is, a corps of 60 is rapidly expanded to 100 by the money-hungry Bureau Chief. The extra 40 employes he adds in order to raise his salary—who are all anxious to keep and prolong their jobs—pass and re-pass a large portion of their work along to somebody else in a perpetual game of musical chairs.

"With respect to the 'Underpaid,' your point cannot be re-emphaized too strongly," writes a former WPB official. "This is particularly true with respect to those rather rare individuals who were able to practice exceptional efficiency. I distinctly recall arguing with Civil Service for more than six months to obtain an $800.00 a year raise for three of my $4800.00 a year unit chiefs who were doing an outstanding job with one assistant and one secretary. Under normal Government standards the job they were doing would require no less than 10 people. The fact that these efficient men were supervising only two people, however, was the primary reason that they were considered qualified for only a CAF-12 classification. I am glad to say that in this case I finally won my point.

"The situation with regard to stenographic help was just about as absurd in the opposite direction. The easiest way for a stenographer to get a raise was to transfer from one division to another, providing she could get a release. Of course the

(Concluded on Page 12, Column 1)

Deepfreeze Opens Big Freezer Sales Drive Next Month

By John O. Sweet

CHICAGO—The accent will be on freezing schools, sales training schools, and display when Deepfreeze Div. of Motor Products Corp. launches its "49er Gold Rush Campaign" next month.

Details of the campaign were disclosed at a distributor meeting in the Hotel Sherman here Feb. 10. Similar meetings were scheduled for New York City (Feb. 14), New Orleans (Feb. 22), and San Francisco (Feb. 28).

It was revealed during the Chicago conference that Deepfreeze had just entered into a time-payment agreement with Commercial Credit Corp. According to S. E. Schafer, Deepfreeze controller, the agreement provides for both wholesale and retail plans.

After G. H. (Rock) Smith, vice president and general manager, quoted statistics intended to indicate that the home freezer market is "wide open," F. F. Duggan, general sales manager, called for in-

(Concluded on Page 29, Column 1)

Tyler Shows 3 New Meat, Dairy Cases

NILES, Mich.—Three new refrigerated display cases of the continuous display type form the new "S" line recently introduced by Tyler Fixture Corp. here.

The new units are the 8 and 12-ft. continuous open meat and dairy cases, and 10 and 12-ft. floodlight continuous meat display cases, and the 8-ft., three-shelf, open meat and dairy case.

"Tyler continuous cases," the company declared, "have unusually strong end members and a sturdy, tight method of joining with the exclusive Tyler lock feature. This affords rigidity, prevents sagging,

(Concluded on Back Page, Column 3)

IN THIS ISSUE

How would you like the job of reconditioning 2,600 used commercial refrigerators? Bill Bodenhamer has it. He tells some of the headaches involved on **page 21.**

* * *

Are you familiar with the Fair Labor Standards Act? The ice manufacturing industry paid $138,946 in one year because many of its members weren't. How they failed to meet the law is outlined on **page 2.**

* * *

If his 27 years in the appliance merchandising field means anything, R. F. Callaway's ideas on how appliances should and can be sold is solid meat for the dealer faced with customers who have their pockets zipped. See **page 10.**

* * *

Some refrigeration equipment distributors are taking up the idea of offering delivery service to their dealer customers in remote areas. Here's how and why one firm does it. See **page 15.**

* * *

Southern servicemen attending the Birmingham, Ala. educational conference and exhibit were full of questions about new products and how to use them that were sometimes surprising to the exhibitors. What they asked appears on **pages 18, 19, and 20.**

* * *

Departments: What's New, **page 27.** . . . Editorial, **page 14.** . . . Key to Air Conditioning, **page 24.** . . . World Trade News, **page 28.** . . . Patents, **page 30.**

Worthington Distributors Get Repurchase Plan

NEW YORK CITY—An unusual distributor's floor stock repurchase plan, designed to help commercial refrigeration and air conditioning distributors obtain sufficient bank credit to properly carry on their operations, was announced here recently by the Worthington Pump & Machinery Corp.

M. M. Lawler, manager of the air conditioning and refrigeration division of the company, presented the plan at an eastern regional sales conference in the Hotel Statler.

Under the plan, which is entirely voluntary with the individual distributor, the manufacturer's credit and financial responsibility are available to back up the distributor in his efforts to get bank credit.

Worthington will guarantee to repurchase any of its equipment carried in stock by the distributor at up to 80% of the sales price. If the distributor should request the manufacturer to repurchase the stock within seven months, then Worthington will repurchase it at 80% of the sales price.

After seven months, the manufacturer's repurchase guarantee drops 10% per month until the twelfth month when a 30% base is reached. The guarantee expires at the end of the twelfth month.

Equipment to which the plan will apply includes "Freon" compressors and condensing units, remote air conditioning units, unit coolers, unit heaters, packaged air conditioning units, evaporative condensers, and ammonia compressors.

Finding that distributors have been

(Concluded on Page 4, Column 4)

Kalamazoo To Protect Dealer Franchise Area

KALAMAZOO, Mich.—A new exclusive dealer franchise policy was announced to regional sales managers for the Kalamazoo Stove & Furnace Co. here recently by C. C. Whitcomb, vice president and general manager.

The policy, Whitcomb said, gives the dealer an exclusive protected territory, a low inventory setup, a financial assistance program, and continuous training and sales promotional service.

Whitcomb declared that the company had doubled its sales staff and greatly boosted its advertising plans for 1949.

Included among the products said to be manufactured by the company are refrigerators, freezers, electric ranges, and winter air conditioning units.

FFLI, NFFLA To Conduct Separate 1949 Conventions

OMAHA, Neb.—The Frozen Food Locker Institute and the National Frozen Food Locker Association have decided to hold their own conventions in 1949 rather than combining to stage a joint exposition and convention, Ray R. Farquhar, executive director of F.F.L.I., announced recently.

The F.F.L.I., he said, will hold its exposition at the Hotel Sherman in Chicago on Oct. 3-6. Planned for the affair are exhibits by manufacturers of refrigeration equipment, lockers, packaging materials, insulation, and operating equipment.

In addition, the program will include a series of dramatized clinics, a national ham and bacon contest, and a number of entertainment features.

Farquhar stated that the two associations had been unable to agree on terms of a new contract covering the joint presentation of national locker meetings.

In a letter to prospective exhibitors, he said that at the coming F.F.L.I. convention, "no time will be devoted to special meetings or politics—target of much past criticism."

He added, "In soliciting your undivided support for the institute's

(Concluded on Page 4, Column 4)

Phila. Refrigerator Sales Reach Peak

PHILADELPHIA — Nearly twice as many electric refrigerators were sold in the Philadelphia area during 1948 as were sold in 1946, a survey conducted by the Electric Association of Philadelphia revealed recently.

The survey showed that the 85,295 refrigerators sold in a five-county area were up 18% over the 71,776 sold in 1947. A total of 44,300 were sold in 1946.

A survey of home freezer sales covering only the last six months of

(Concluded on Page 4, Column 5)

Bendix Reduces Price On 2 Older Models

SOUTH BEND, Ind.—A $30 reduction in the price of two models of Bendix automatic washers on which production is being discontinued has been announced by Bendix Home Appliances, Inc. here.

The models are the standard S101, which was cut from $219.95 to $189.95, and the deluxe, B201, dropped from $239.95 to $209.95.

Only about 15,000 of these units are in stock, the company said.

Extension of Credit, Banking Controls Asked

Continued Anti-Inflation, Pressure Needed, Reserve Board Tells Congress

WASHINGTON, D. C. — Thomas B. McCabe, chairman of the Federal Reserve Board, supported President Truman's request for extension of consumer credit controls and of authority to increase bank reserve requirements in his testimony before the House-Senate economic committee recently.

McCabe testified that if Regulation W is continued after the June 30 deadline, the board would attempt to prevent excessive contraction of consumer credit as well as excessive expansion.

He asked that the limits on the board's authority to require supplemental reserves be raised to 10% against demand deposits and 4% against time deposits. He also asked that the authority be extended to cover all insured banks and not just members of the Federal Reserve system as heretofore.

The FRB chairman asserted that if the increased authority was granted, the board would use it to absorb future additions to reserves and not to force banks to liquidate outstanding loans.

McCabe said, "We will modify these restraints (including Regulation W) as the economic conditions warrant and will not hesitate to relax them when they have served their purpose." They will be used only when and to the extent neces-

(Concluded on Page 4, Column 3)

Cooper Heads Freezer Sales at Philco Corp.

PHILADELPHIA—Jack C. Cooper, formerly general sales manager of Philco Corp. of Canada, Ltd., has been appointed manager of freezer sales for Philco Corp., the parent company, it was announced recently by John M. Otter, vice president and general manager of sales.

Cooper, who has had 20 years of experience in the electrical appliance business, joined the Philco subsidiary in Canada in 1945 as sales manager of the refrigerator and freezer division. Later he was named sales promotion manager and a year ago became general sales manager handling the company's Canadian selling operations.

In his newly created position in charge of freezer sales at the Philco headquarters here, Cooper will concentrate on sales and merchandising activities to stimulate the growing demand for this relatively new appliance.

Philco has just introduced five new freezer models ranging in size from 4 to 30-cu. ft. capacity, including both chest and upright types suitable for home and farm use.

G-E Sees Higher Output, Introduction of 'Simplified', Lower-Priced Models In '49

NEW YORK CITY—Increased production of most General Electric major appliances during the first quarter of 1949 and the pending introduction of some simplified, low-priced models for the mass market were revealed by Hardage L. Andrews, vice president in charge of the G-E appliance and merchandise division, in an article appearing in the New York *Times* recently.

Andrews stated that output of General Electric refrigerators during the first quarter is scheduled to run 20% higher than for the final quarter of 1948.

Vacuum cleaner output, Andrews added, has been boosted 40%. Electric range production schedules are up 13% and home freezers are up 10%. Automatic washer production remains the same, while conventional washer output has been reduced by 16%. This latter was accomplished by placing the factory on a five-day week instead of the six-day week formerly employed, he said.

Production of traffic appliances is also at the same level as in the last quarter of 1948.

Andrews declared that in spite of the industry-wide slump in appliance sales during the past few months, General Electric's business has been good. He said:

"Our dollar volume at the factory level in the last quarter of 1948 exceeded the comparable 1947 period by 2%.

(Concluded on Page 4, Column 5)

Easy Shifts Production To Lower-Priced Washer

SYRACUSE, N. Y.—Production at the Easy Washing Machine Corp. plant here has been suspended until about March 1 to rearrange assembly and conveyer lines for a new wringer-type washer, H. P. Nelligan, president, announced recently.

Nelligan said that production of both the spin-drier models and the new wringer type would be commenced at that time. The new unit is being added, he said, to broaden the company's line and to meet demand for a lower priced machine.

Butcher Patrons Choose Between Pre-Packaged, Standard Meat Service

VALVERDE, Colo.—Mindful of the competitive selling period ahead, when more service will be necessary to please customers, H. C. Sebern, head of the Sebern & Sons supermarket here, is experimenting with a meat department combining refrigerated self-service and butcher service operations.

"We must do everything possible to please the customer in the future," Sebern stated, "which means that anything like a discolored meat package, or dissatisfaction with self-service packaging, will hamper goodwill.

"While many customers like self-service fresh meat, others do not and therefore, we are offering them both methods to see which will get the most goodwill over a six months period."

The Sebern store has one 12-ft. Hill meat display case operated by two butchers on the right wall of the store. Next to it is another 12-ft. case, this one a Hussmann open, refrigerated box, for self-serve meats. Both cases display the same meats, and the customer "takes her choice" of which way she wants to buy.

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Bigger Output Readied For Everfrost Soda Bar

LOS ANGELES — Anderson & Wagner, Inc., maker of Everfrost soda fountains, carbonators, and soda bars, has announced that it is building an addition to its plant that, when completed, will more than double the size of present facilities and will bring the total floor space to 30,000 sq. ft.

The construction of the new addition represents the first major expansion of the company since its present plant was enlarged in 1946. The firm has been in business 10 years.

The addition, according to company officials, is being made to meet production requirements for its soda bar that was developed two years ago and has been on the market for about a year and its complete line of refrigerated soda fountain equipment.

The company said that it plans to increase its sales outlets and now has some territories available for dealers.

W. J. Mays, H. D. Chisholm Get New Posts at Cordley & Hayes

NEW YORK CITY—C. M. Cordley, president of Cordley & Hayes, manufacturer of water coolers, announces the election of William J. Mays as a vice president and H. Douglas Chisholm as secretary.

Chisholm takes over the former duties of Mays as secretary and purchasing agent and continues as controller.

Wage-Hour Division Inspections Show Many Firms Fail To Meet Law

WASHINGTON, D. C. — On the basis of limited inspections in the ice manufacturing industry during the 1948 fiscal year, it was revealed that employers owed $138,946 to 1,610 of their employes as back wages because of violations of the Fair Labor Standards Act (the Federal Wage and Hour Law) and the Public Contracts Act.

This is shown in the 1948 annual report just submitted to the 81st Congress by Wm. R. McComb, Administrator of the Wage and Hour and Public Contracts Divisions, U. S. Department of Labor. The report covers the 12-month inspection period of the divisions ended June 30, 1948, during which 137 establishments in the ice manufacturing industry were inspected.

Failure to make proper payment for overtime work was found to be the most common type of violation, most of the back wages being allotted to employes for this reason. However, despite the modest 40-cents-an-hour minimum wage requirement of the Wage and Hour Law, part of the back wages was owed because some employes had not always been paid even that amount. Violations of the child-labor provisions of the Wage and Hour Law and of the Public Contracts Act also were disclosed in the survey.

The Fair Labor Standards Act (the Wage and Hour Law) is more generally applicable, affecting employes engaged in interstate commerce or in the production of goods for interstate commerce, including occupations necessary to such production. In addition to its minimum wage requirement of 40 cents an hour, this law provides that work after 40 hours a week must be paid for at the rate of at least time and one-half the employe's regular rate of pay.

The Public Contracts Act applies to employes engaged in manufacture or supply contracts for the Government in excess of $10,000. Both laws incorporate similar child-labor provisions.

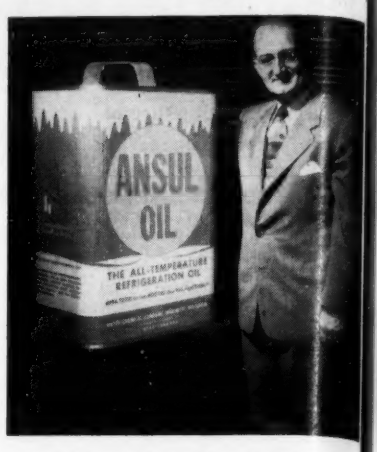
Administrator McComb attributes most Wage and Hour Law violations to improper calculation of overtime compensation and improper applica- of the exemption provisions. He advises employers in doubt about any provisions of either law to consult the divisions, whose regional offices are located in Boston, New York, Philadelphia, Birmingham, Cleveland, Chicago, Kansas City, Dallas, and San Francisco.

Central New York Refrigeration Co. Bankruptcy Terms Are Set

SYRACUSE, N. Y.—The creditors' committee for the Central New York Refrigeration Co., Inc., 145 Walton St., has reported in favor of a 30% settlement offer in the plan of arrangement of the firm, before David J. Goldstein, U. S. referee in bankruptcy.

J. Vincent Connor, president, deposited $2,000 toward the arrangement. Second payment will be made March 15.

Entering New Field



Ansul President Jim Hood alongside an over-size replica of the firm's oil can.

* * *

Ansul Men Meet To Plan Refrigeration Oil Sales

MARINETTE, Wis.—The refrigeration division of Ansul Chemical Co. recently held its first general sales conference since the war.

Eleven salesmen met at Ansul home office here to discuss the introduction of the company's new refrigeration oil.

Sales objectives for 1949 were established and new sales aids and other promotional services talked over. Sales director L. C. McKesson presided.

Salesmen attending were Leo Russell and Vern Dyer, far west; Dwight Hardie, north central; Ray Polley, southwest; Henry Gullatt, south; Floyd Duvall, Herman Gullatt, berg, Willis Stafford, Felix Wierman, middlewest; T. R. Kearney and Herb Dill, east.

Carolina Mfr., Union Groups Dispute Type Of Air Cooling Needed for Textile Plants

COLUMBIA, S. C.—A bill which would require air conditioning of textile mills in South Carolina was opposed by industry spokesmen at a hearing conducted recently by the labor and commerce committee of the South Carolina House of Representatives.

The bill, which has not been acted upon at this writing, was introduced by Rep. John Long of Union, who asserted that "healthy, satisfied workers are essential."

T. Frank Watkins, counsel for the South Carolina Cotton Manufacturers Association, told the committee that textile mills in South. Carolina already are air conditioning their plants as rapidly as economic conditions permit.

He brought with him C. A. Miller of Greenville, ventilating and heating engineer, who indicated the bill might require refrigerated air conditioning. Watkins insisted it would.

"It would cost the mills of this state $40,000,000 to meet the terms of this bill, best estimates show," Watkins declared.

Rep. Long said that air conditioning systems cheaper than those with refrigeration units would "do the job."

The bill would require that temperature in mills be kept at an average of 85° F.

Miller said various manufacturing processes required varying types of conditioning systems. He estimated that "about 20 to 25%" of the state's mills now could meet terms of the bill with their present air conditioning systems. He said South Carolina was a leader in textile mill air conditioning.

W. K. Gunter of Gaffney, who operates what he termed a "small mill" there, which is insulated and air conditioned, opposed the bill vigorously "because I fear how it will be administered."

Watkins said such legislation would put South Carolina in a "bad" competitive position with other Southern states. "It would be all right if Alabama, Georgia, North Carolina and other competing states enacted such a law," he said.

Support for the bill was expressed by State Director Franz E. Daniel of the CIO Textile Workers Union of America and Vice President Dorse Moseley of the state division of the AFL United Textile Workers of America.

BRUNNER SINCE 1906 REFRIGERATION helps you serve better

...a size and type for every purpose

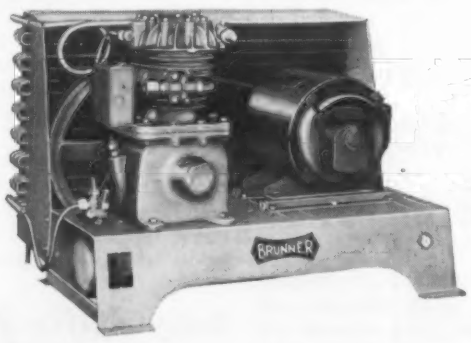
STANDARDIZE on Brunner Condensing Units. Strengthen your sales and service advantages by having available *customer accepted* units in sizes and types fitted to every refrigeration job.

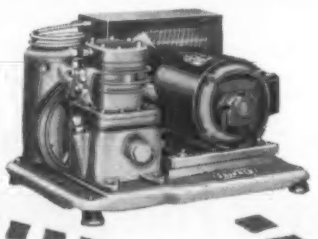
Equipment manufacturers, air conditioning engineers and contractors, general refrigeration engineers and service companies can profit more when backed by a source of supply with ample, self-controlled production facilities.

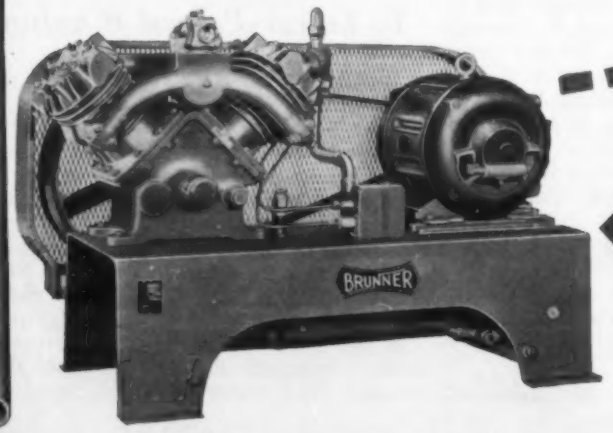
Brunner Condensing Units are continuously advertised to the "user" trades and industries. They are known by their service records...preferred for their operating efficiency, economy and long life.

BRUNNER MANUFACTURING CO.
Utica 1, New York, U. S. A.

● 22 Brunner branch office representatives who really know refrigeration are available whenever you say the word. We sincerely believe a meeting with one of these men would prove useful and well worth your time.







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BRUNNER SINCE 1906

AIR AND WATER COOLED MODELS
¼ HP. TO 30 HP.

TYPHOON SELF-CONTAINED UNITS
TYPHOON AIR CONDITIONING

For More Profits in
Air Conditioning
Tie up with
TYPHOON
Sizes up to 10-tons
Product of over 30 years of experience
TYPHOON AIR CONDITIONING CO., INC.
Division of Ice Air Conditioning Co., Inc.
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SELL
DISPLAY CABINETS
QUICKFREEZERS
BEVERAGE COOLERS
Victor
MILK COOLERS
ICE MAKERS
WALK-IN
WRITE
VICTOR PRODUCTS CORP.
HAGERSTOWN, MARYLAND

SPECIAL PLASTIC MODEL SHOWS

Retail-Mindedness . . . Crystal Clear!

There is no doubt about it, the trend in domestic refrigerators is all toward more cold space, with no increased floor area. Here, expressed in a special plastic model of a regular Kelvinator Masterpiece Refrigerator, is the answer to that trend!

Mark it well. For it is the dramatization of another Kelvinator "first" . . . among a long list of "firsts" that have made refrigeration history. *Here is cold from top to floor!*

And it's easy to see why this great engineering advance has received such an unparalleled reception on Kelvinator dealers' floors. *Every bit of food space you see pictured above is refrigerated.*

By taking advantage of the compactness of the famous Polarsphere Unit and a new condenser design, Kelvinator scientists have added more than 2,500 cubic inches of *cold* space to the inside of the refrigerator!

Here, crystal clear, is plain evidence of Kelvinator retail-minded thinking . . . of out-in-front *imagineering* . . . of engineering leadership as it is pledged in the Kelvinator Dealer Franchise.

Here also is a crystal-clear picture of the industry's future. Make no mistake about it. You'll see more of *cold from top to floor!*

TUNE YOUR RADIO TO EDWIN C. HILL and "THE HUMAN SIDE OF THE NEWS" Monday through Friday . . . another retail-minded contribution to the progress of Kelvinator Dealers.

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. . . THE MOST VALUABLE FRANCHISE IN THE APPLIANCE INDUSTRY

KELVINATOR, DIVISION OF NASH-KELVINATOR CORPORATION, DETROIT, MICHIGAN

.n (kitchen).
.h-ins (kitchen).
sets of cold plates (kitchen
.le); three sets of refrigerated
shelves (kitchen aisle).
.) Walk-in refrigerator (kitchen).
. HP) Two walk-ins (basement).
(2 HP) Three water coolers (basement).

.l advantage of all commercial refrigeration markets.

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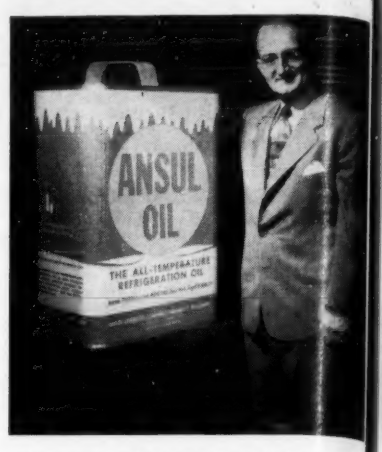
J. Vincent Connor, president, deposited $2,000 toward the arrangement. Second payment will be made March 15.

Entering New Field



Ansul President Jim Hood alongside an over-size replica of the firm's oil can.

* * *

Ansul Men Meet To Plan Refrigeration Oil Sales

MARINETTE, Wis.—The refrigeration division of Ansul Chemical Co. recently held its first general sales conference since the war.

Eleven salesmen met at Ansul home office here to discuss the introduction of the company's new refrigeration oil.

Sales objectives for 1949 were established and new sales aids and other promotional services talked over. Sales director L. C. McKeag presided.

Salesmen attending were Lee Russell and Vern Dyer, far west; Dwight Hardie, north central; Ray Polley, southwest; Henry Gullat, south; Floyd Duvall, Herman Gullatberg, Willis Stafford, Felix Wiermanmiddlewest; T. R. Kearney and Herb Dill, east.

Carolina Mfr., Union Groups Dispute Type Of Air Cooling Needed for Textile Plants

COLUMBIA, S. C.—A bill which would require air conditioning of textile mills in South Carolina was opposed by industry spokesmen at a hearing conducted recently by the labor and commerce committee of the South Carolina House of Representatives.

The bill, which has not been acted upon at this writing, was introduced by Rep. John Long of Union, who asserted that "healthy, satisfied workers are essential."

T. Frank Watkins, counsel for the South Carolina Cotton Manufacturers Association, told the committee that textile mills in South Carolina already are air conditioning their plants as rapidly as economic conditions permit.

He brought with him C. A. Miller of Greenville, ventilating and heating engineer, who indicated the bill might require refrigerated air conditioning. Watkins insisted it would.

"It would cost the mills of this state $40,000,000 to meet the terms of this bill, best estimates show," Watkins declared.

Rep. Long said that air conditioning systems cheaper than those with refrigeration units would "do the job."

The bill would require that temperature in mills be kept at an average of 85° F.

Miller said various manufacturing processes required varying types of conditioning systems. He estimated that "about 20 to 25%" of the state's mills now could meet terms of the bill with their present air conditioning systems. He said South Carolina was a leader in textile mill air conditioning.

W. K. Gunter of Gaffney, who operates what he termed a "small mill" there, which is insulated and air conditioned, opposed the bill vigorously "because I fear how it will be administered."

Watkins said such legislation would put South Carolina in a "bad" competitive position with other Southern states. "It would be all right in Alabama, Georgia, North Carolina and other competing states enacted such a law," he said.

Support for the bill was expressed by State Director Franz E. Daniel of the CIO Textile Workers Union of America and Vice President Dorsey Moseley of the state division of the AFL United Textile Workers of America.

BRUNNER SINCE 1906 REFRIGERATION helps you serve better

...a size and type for every purpose

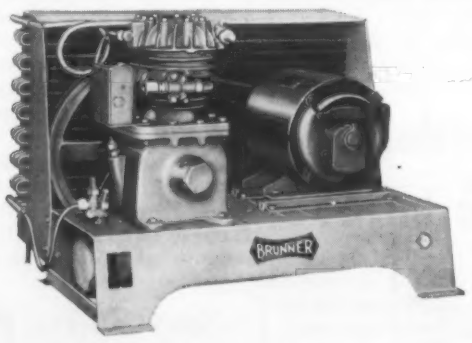
STANDARDIZE on Brunner Condensing Units. Strengthen your sales and service advantages by having available *customer accepted* units in sizes and types fitted to every refrigeration job.

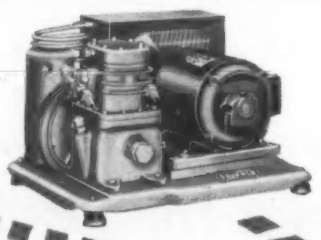
Equipment manufacturers, air conditioning engineers and contractors, general refrigeration engineers and service companies can profit more when backed by a source of supply with ample, self-controlled production facilities.

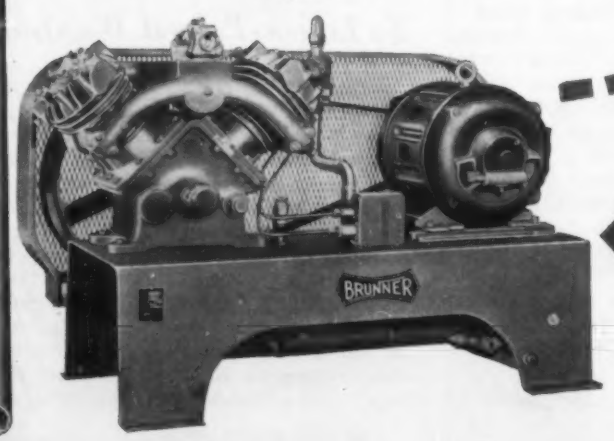
Brunner Condensing Units are continuously advertised to the "user" trades and industries. They are known by their service records...preferred for their operating efficiency, economy and long life.

BRUNNER MANUFACTURING CO.
Utica 1, New York, U. S. A.

22 Brunner branch office representatives who really know refrigeration are available whenever you say the word. We sincerely believe a meeting with one of these men would prove useful and well worth your time.







REFRIGERATION CONDENSING UNITS ...a size and type for every purpose

BRUNNER SINCE 1906

AIR AND WATER COOLED MODELS
¼ HP. TO 30 HP.

TYPHOON AIR CONDITIONING SELF-CONTAINED UNITS

For More Profits in Air Conditioning
Tie up with TYPHOON
Sizes up to 10-tons
Product of over 30 years of experience
TYPHOON AIR CONDITIONING CO., INC.
Division of Ice Air Conditioning Co., Inc.
794 UNION STREET • BROOKLYN, N.

SELL
DISPLAY CABINETS
QUICKFREEZERS
BEVERAGE COOLERS
Victor
MILK COOLERS
ICE MAKERS
WALK-IN
WRITE
VICTOR PRODUCTS CORP.
HAGERSTOWN, MARYLAND

SPECIAL PLASTIC MODEL SHOWS

Retail-Mindedness . . . Crystal Clear!

There is no doubt about it, the trend in domestic refrigerators is all toward more cold space, with no increased floor area. Here, expressed in a special plastic model of a regular Kelvinator Masterpiece Refrigerator, is the answer to that trend!

Mark it well. For it is the dramatization of another Kelvinator "first" . . . among a long list of "firsts" that have made refrigeration history. *Here is cold from top to floor!*

And it's easy to see why this great engineering advance has received such an unparalleled reception on Kelvinator dealers' floors. *Every bit of food space you see pictured above is refrigerated.*

By taking advantage of the compactness of the famous Polarsphere Unit and a new condenser design, Kelvinator scientists have added more than 2,500 cubic inches of *cold* space to the inside of the refrigerator!

Here, crystal clear, is plain evidence of Kelvinator retail-minded thinking . . . of out-in-front *imagineering* . . . of engineering leadership as it is pledged in the Kelvinator Dealer Franchise.

Here also is a crystal-clear picture of the industry's future. Make no mistake about it. You'll see more of *cold from top to floor!*

TUNE YOUR RADIO TO EDWIN C. HILL and "THE HUMAN SIDE OF THE NEWS" Monday through Friday . . . another retail-minded contribution to the progress of Kelvinator Dealers.

GET MORE . . . Get Kelvinator

. . . THE MOST VALUABLE FRANCHISE IN THE APPLIANCE INDUSTRY

KELVINATOR, DIVISION OF NASH-KELVINATOR CORPORATION, DETROIT, MICHIGAN

see your "DETROIT"
WHOLESALER
for
Expansion Valves
Solenoid Valves
Controls
"DETROIT"
2810
DETROIT LUBRICATOR COMPANY General Offices: 5900 TRUMBULL AVENUE DETROIT 8, MICHIGAN
Division of American Radiator & Standard Sanitary corporation
Canadian Representatives—RAILWAY AND ENGINEERING SPECIALTIES LIMITED, MONTREAL, TORONTO, WINNIPEG
"Detroit" Heating and Refrigeration Controls • Engine Safety Controls • Float Valves and Oil Burner Accessories
"Detroit" Expansion Valves and Refrigeration Accessories • Stationary and Locomotive Lubricators
"DETROIT"
EXPORT DEPARTMENT—Box 218, Ridgefield, New Jersey

Philadelphia Refrigerator Sales Hit 85,295 Units

ELECTRIC REFRIGERATOR SALES, 1948

Month	1948 Units Sold	1947 Units Sold	1946 Units Sold	1948% Inc. Or Decrease Over 1947	1948 Retail Value	1947 Retail Value	1948% Inc. Or Decrease Over 1947	1948 Average Price	1947 Average Price
January	5,760	5,168	2,864	+11%	$ 1,350,543	$ 1,252,471	+ 7%	$234	$243
February	5,554	5,251	1,332	+ 5%	1,449,439	1,259,688	+15%	261	240
March	7,426	4,674	2,398	+58%	2,017,666	1,261,805	+59%	271	260
April	8,259	5,545	2,387	+48%	2,203,480	1,334,005	+66%	266	240
May	8,072	6,583	3,476	+22%	2,160,105	1,578,906	+36%	267	239
June	8,177	6,805	4,358	+20%	2,311,009	1,669,551	+38%	282	245
July	7,981	6,308	4,265	+24%	2,215,795	1,637,125	+35%	277	259
August	7,785	6,264	4,890	+24%	2,266,693	1,606,828	+41%	291	240
September	7,267	5,190	3,720	+40%	2,069,023	1,318,683	+56%	284	252
October	7,339	6,825	4,915	+ 7%	2,157,486	1,896,249	+13%	293	277
November	6,476	5,705	4,958	+13%	1,895,636	1,582,394	+20%	294	277
December	5,199	7,458	4,737	—31%	1,564,014	2,087,766	—26%	300	279
Total	**85,295**	**71,776**	**44,300**	**+18%**	**$23,660,889**	**$18,485,471**	**+27%**	**$278**	**$257**

Note: Report covers sales in Philadelphia, Bucks, Montgomery, Delaware, and Chester counties.

Report includes sales of the following makes: Admiral, Coldspot, Coolerator, Crosley, Frigidaire, Frostair, General Electric, Gibson, Hotpoint, International Harvester, Kelvinator, Leonard, Norge, Philco, and Westinghouse.

* * *

Credit Controls--

(Concluded from Page 1, Column 5)

sary to protect the economy, he averred.

McCabe asserted that present deflationary tendencies in the economy are not sure signs that the dangers of inflation are past. He said that deficit financing, critical shortages, substantial wage increases, excessive state and local government spending, increased military and foreign aid, or resumption of rapid credit expansion could bring inflation back again.

However, McCabe noted, the Federal Reserve system is now better equipped than ever to combat a downward trend in the business cycle.

Van Poppelen To Manage G-E Air Conditioning Dept.

BLOOMFIELD, N. J. — Appointment of F. J. Van Poppelen as manager of manufacturing of the General Electric Co.'s air conditioning department, was announced recently by Harold F. Smiddy, company vice president and general manager of the department.

Van Poppelen succeeds A. W. Wennerstrom, who, after more than 35 years with the company, is taking up new duties as manufacturing consultant on the air conditioning department manufacturing staff, it was announced.

A native of Bay City, Mich., Van Poppelen has been with General Electric since Jan. 1, 1949, working with R. R. Rausch, vice president in charge of manufacturing policy at Schenectady, N. Y.

Prior to joining General Electric, Van Poppelen was vice president of the Hupp Corp. of Cleveland, manufacturer of finished product assemblies and machined parts for the automotive and refrigeration industries.

Phila. Sales Peak--

(Concluded from Page 1, Column 4)

1948 and the same five counties revealed that 2,768 units of 15 different brands of freezers were sold. They had an aggregate retail value of $836,857, or an average retail price of $302.

Average price figures given on a month-by-month basis in both surveys showed that refrigerator prices have tended to rise through 1947 and '48 to a high of $300 in December, 1948, while freezer prices hit a peak of $313 in August and October.

Average refrigerator prices during the last three months of 1948 moved steadily upward. Home freezer prices during the same quarter moved steadily downward from the $313 high till they had reached an average of $308 in December.

The month-by-month sales statistics on the two appliances are shown in the tables below:

HOME FREEZER SURVEY, 1948

1948	No. of Units Sold	Total Retail Value	Average Retail Price
July	763	$217,816	$285
August	615	192,931	313
September	496	147,673	297
October	483	151,358	313
November	198	61,354	309
December	213	65,725	308
	2,768	$836,857	$302

This report includes sales of the following makes: Coolerator, Deepfreeze, Frigidaire, Frostmaster, General Electric, Gibson, Hotpoint, International Harvester, Kelvinator, Leonard, Maytag, Norge, Philco, Wilson Zerosafe, and York.

Survey covers sales in Philadelphia, Bucks, Chester, Delaware, and Montgomery counties.

FFLI and NFFLA--

(Concluded from Page 1, Column 4)

exposition, we should like to point out that the institute's profits from past conventions have been devoted entirely to the expansion of the locker industry with consequent benefits to you, rather than in the support of a program of political activity which has accomplished little at the national level."

He said that there would be no registration fee at the institute's exposition and that exhibits and clinics would be arranged so that everyone attending could see all exhibits and attend all clinics.

Farquhar asserted that invitations to the event would be sent to all 11,000 locker operators in this country, to college personnel, county agents and extension workers, government officials, and to others interested in the industry.

In the clinic series, he declared, professional actors and acknowledged industry authorities will be used. The clinics are intended, he said, to bring home the financial rewards to the operator who practices modern methods of packaging, slaughtering, processing, smoking, curing, sausage making, and merchandising.

"These clinics will be on a scale never before presented," Farquhar stated.

Worthington Plan--

(Concluded from Page 1, Column 3)

unsuccessful in getting sufficient credit from banks unfamiliar with the nature of the business and therefore have been withholding orders, Lawler said that the manufacturer is forwarding the plan because he needs these orders now.

Lawler stated, "We believe the banks will react favorably to this proposal and it will be of material help to distributors."

He explained that distributors who want to use the repurchase plan must first get approval from Worthington treasury officials on their proposed purchases. The company at that time will establish a maximum liability that it will be responsible for. This amount will be listed right in the contract form as a guard against possible inventory speculation or over-buying, the company indicated.

Sees Higher Output--

(Concluded from Page 1, Column 3)

"Last month (January) our factory billings increased 15% compared with January, 1948. In view of the fact that the appliance industry is definitely back on a seasonal basis and January is conceded to be the most serious of the 'off' months, no further cutbacks in production are warranted between now and April 1."

Andrews stated that General Electric had turned out 12,000,000 appliances last year. According to the *Times*, he "expressed complete confidence that the company would equal its 1948 output this year."

Andrews declared that, with the high cost of labor and materials, General Electric will not reduce prices on its present lines this year. However, he said that the company is attempting to develop simplified versions of high-priced appliances that will sell for lower prices in the mass-market.

The simplified versions, he asserted, will perform as well as the higher priced models.

Specifically, the company intends to introduce an automatic clothes washer soon that will sell for less than its present model which retails for $369.50. Andrews hinted that General Electric will have a simplified model of another unnamed appliance on the market by spring—at a considerable reduction in price.

Andrews said, according to the *Times*, that current high-priced models will be retained at approximately the same levels permanently, but production will gradually be reduced to conform to the limited market as output of simplified units slowly expands.

UNITED'S QUALITY IS KNOWN THE WORLD OVER!

Breakaway, illustrating the interior arrangement of United "Two-Temps". Heavily insulated wall and doors separate the two compartments.

Two-Temperature
WALK-IN
REFRIGERATOR

● Gives you both CHILLED storage and FROZEN storage simultaneously!

● 120 cu. feet of chilled and 38 cu. feet of frozen storage.

● A handsome fixture, smooth rounded corners, gleaming du Pont "Dulux" baked enamel finish in pure white.

United
Popular Size
WALK-INS

"Economy-Six"
WALK-IN-ETTE
METAL-LINED COOLER

● Tall enough to walk in, yet small enough to fit in! 6′ x 6′ x 6′6″ . . . AN IDEAL SIZE!

● Prefabricated in just six easy-to-assemble sections . . . COMPACT!

● Assembly line production assures lowest possible price. Expert engineering, exhaustive factory testing assures low cost operation . . . ECONOMICAL!

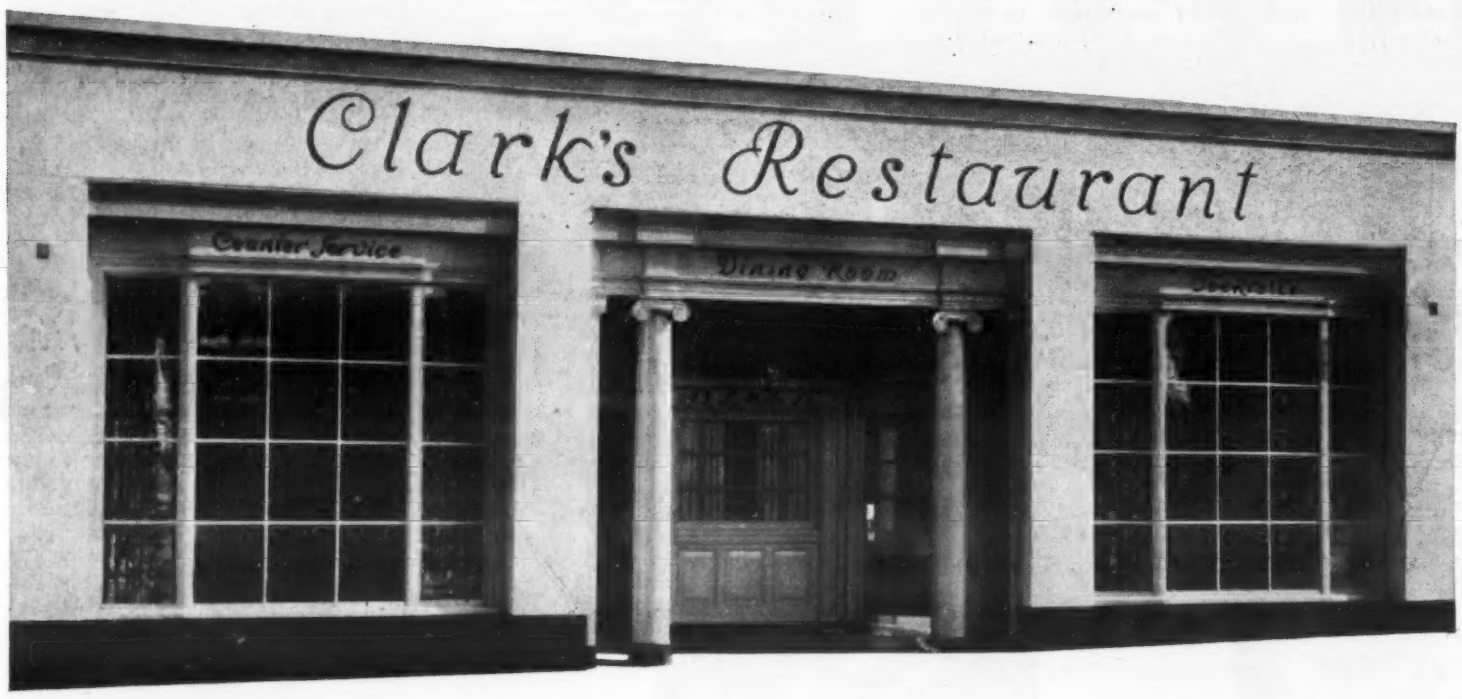
NEW—United Walk-In-Ettes are now equipped with free swinging, well balanced, metal sheathed doors for greater durability.

UNITED REFRIGERATOR COMPANY • Hudson, Wisconsin

Here's your market

"Powered by Servel" refrigerators keep foods fresh for Clark's all stainless steel kitchen, equipped with every convenience.

Conveniently located food fixtures step up the handling of short orders in Clark's popular counter room.



Modern Restaurant Completely equipped with Servel Supermetics

Choice of 11 Servel Units is result of previously successful experience of prominent Ohio chain

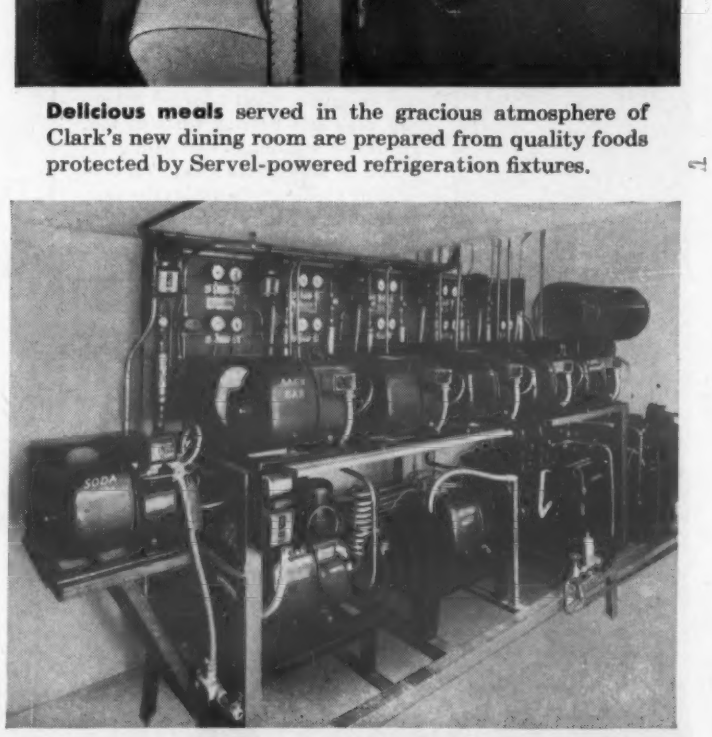
One of the nation's finest examples of modern food serving establishments was recently opened in Akron, Ohio, by the Clark Restaurant Co., of Cleveland, operators of a prominent restaurant chain. Pictured here are typical scenes from the attractive and handsomely furnished Clark's Colonial Restaurant, 143 South Main Street.

Principals of the Clark organization were careful in their selection of every requirement for the new establishment—decorative materials, furnishings, fixtures and food serving devices of highest quality were specified. Previously they had made a careful study of their refrigeration requirements. For nearly two years they closely observed the operating and maintenance costs of Servel Supermetic hermetically sealed condensing units at other Clark restaurant locations. The results of this study particularly emphasized the lower maintenance costs of Servel units. The cost of replacing belts and seals (eliminated in the Supermetic design) could be entirely omitted. Further, they found Servel Supermetic economical to operate, and fully dependable for every refrigeration requirement. Its "forced-feed" lubrication system offered assurance of long life and trouble-free service. And, the compact design meant saving valuable floor space.

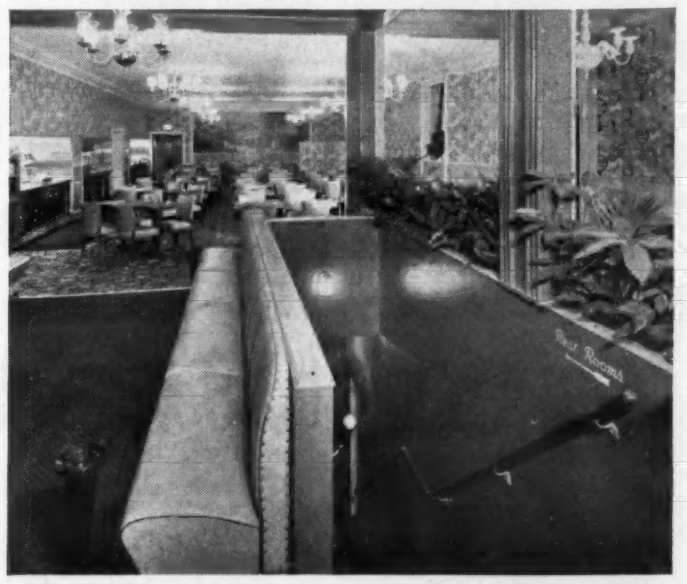
The Refrigeration Sales Corporation, Servel's Cleveland distributor, whose organization had previously sold and installed Supermetics for other Clark Restaurants, is to be credited with a splendid job of installing the 11 Supermetics required for the new Akron restaurant.

Refrigeration dealers in every community have an opportunity for many profitable sales in the restaurant field, where requirements exist for one, two, or a number of commercial condensing units. Recent figures show that there are over 423,000 restaurants in this country. The need for dependable, trouble-free refrigeration extends to a wide variety of uses—reach-ins, walk-ins, water coolers, milk coolers, salad coolers, ice cream cabinets, soda fountain equipment and a multitude of related fixtures used by food and beverage retail firms.

Servel Supermetic units are available in all sizes from ¼ HP through 3 HP. Also available is a full line of belt-driven units built around Servel "Superpact" compressors for direct current, odd frequency, and mobile refrigeration applications. For further details about Servel condensing units, write now for your free copy of a new illustrated folder. Address Servel, Inc., 2902 Kentucky Avenue, Evansville 20, Indiana.

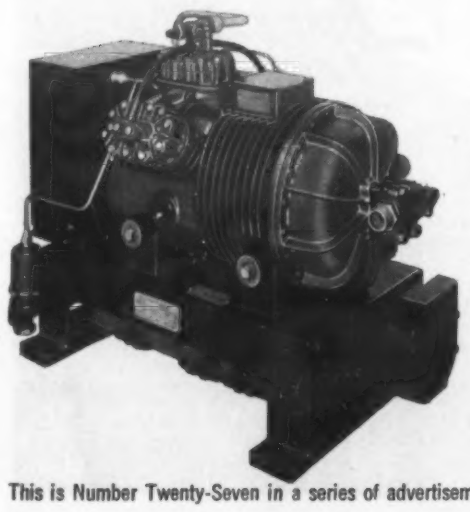


Ice-cold beverages from Clark's Servel-equipped cocktail bar please customers and build repeat sales.



Delicious meals served in the gracious atmosphere of Clark's new dining room are prepared from quality foods protected by Servel-powered refrigeration fixtures.

The compact, lightweight design of Servel Supermetic permitted this arrangement of the 11 units which serve all food and beverage departments. Sizes range from ⅓ HP to 2 HP.



Servel Supermetic condensing units are admirably suited to every refrigeration requirement for restaurants, markets, drug stores, taverns and a wide variety of similar business places. Sizes range from ¼ HP through 3 HP. Illustrated is a water-cooled six-cylinder 2 HP model.

Servel Inc.

ELECTRIC REFRIGERATION DIVISION • EVANSVILLE 20, INDIANA

Servel Supermetics serve these refrigeration fixtures at Clark's Colonial Restaurant

MODEL NO.		
H2E	(⅓ HP)	Reach-in (cocktail bar).
H2E	(⅓ HP)	Two salad cold plates (kitchen aisle).
H2B	(½ HP)	Milk cold plate, salad cold plate (counter room); two milk cold plates, two butter cold plates (dining room).
H2B	(½ HP)	Under-counter refrigerators for counter room and dining room.
H2B	(½ HP)	Two reach-ins (kitchen).
L2B	(½ HP)	Soda fountain (kitchen).
H2R	(¾ HP)	Two reach-ins (kitchen).
WH2R	(¾ HP)	Two sets of cold plates (kitchen aisle); three sets of refrigerated shelves (kitchen aisle).
WH4F	(1 HP)	Walk-in refrigerator (kitchen).
WH6R	(2 HP)	Two walk-ins (basement).
WH6R	(2 HP)	Three water coolers (basement).

This is Number Twenty-Seven in a series of advertisements featuring the markets available to the alert dealer in the commercial refrigeration industry. Ask for reprints for use in training your salesmen to take full advantage of all commercial refrigeration markets.

Briefing Serviceman on Appliance Before He Leaves, Assures Customer a Better Job, Speedier Handling

DENVER—A last minute instruction system has been developed by Joe Grace, service department manager at Daniels & Fisher, department store here, to insure that appliance service calls are answered with maximum efficiency and speed.

Before starting out on the day's refrigeration service calls, Daniels & Fisher's mechanics report directly to the appliance showroom in the basement of the store. All calls for service are received here, and full details on name, address, and time the customer wants service, plus the make and age of her refrigerator, are jotted on a card.

When the men report, the cards are distributed among them, and routed to save milage and time between calls. At the same time, Grace checks each card with the mechanic who will handle the call, determining whether the serviceman has any questions to ask about how to repair the appliance.

If there is any unfamiliarity with the appliance, it is easy for the veteran service manager to show his mechanic how the job should be handled, demonstrating on one of the refrigerators of similar make on the salesfloor.

Details on design, makeup, and special features of the major appliance can thus be "familiarized" just before the mechanic starts out on his repair call.

"This means less delay or interruptions on the service job," Stanley Hoffman, appliance buyer, said. "Frequently, getting a look at a new appliance in this way does away with the need for telephoning in or returning to the shop for special instructions."

The Denver department store maintains all of its own appliances, with a three-man service department. After warranty period, service calls are charged for at $3.00 per hour, but are concentrated only on past customers of the store.

"The service department is our most important sales tool," Hoffman indicated. "None of the mechanics does any prospecting for future appliance sales, or wastes time on anything but getting the refrigerator into top running order. In this way, we've built up a reputation for good, fast service at all times."

Smith Mfg. Co. Becomes Fasco

ROCHESTER, N. Y.—Fasco Industries, Inc. is the new name for F. A. Smith Mfg. Co., Inc., manufacturer of fans, motors, ventilators, blowers, and automotive electrical equipment.

The new name conforms more closely to the trademark "Fasco" used on the company's products, according to H. P. Toppin, president.

Toppin said that there is absolutely no change in corporate structure, officers, directors, or policies.

Midwest University Plans Engineering Symposium

MINNEAPOLIS—The University of Minnesota through the facilities of its Institute of Technology and of the Center for Continuation Study will conduct a symposium on cooperative engineering research on March 14, 15, and 16, here.

It will seek to bring about better understanding and a closer relationship in cooperative engineering research among universities, industrial concerns, and governmental agencies.

The symposium is open to all persons actively interested in industrial and engineering research, but the University reserves the right to limit enrollment for it to the available facilities. The fees for attendance are: registration, $2; tuition, $5; for a total of $7, payable upon application.

Further information may be obtained by writing to the Director, Center for Continuation Study, University of Minnesota, Minneapolis 14.

Appliance Output Too Low Warns Old Uncle Joe

MOSCOW, U.S S.R. — Why can't Soviet industry mass produce household refrigerators?

And why can't it make domestic or communal washing machines?

Those are two questions that profoundly distrub the Moscow newspaper *Pravda.*

The paper recently chided the Soviet ministry of light industry for its failure to produce these appliances. The ministry, it complained, does not seem to realize how much energy women put into laundering clothes and how much this reduces the productivity in the Soviet factory.

Minnesota Legislators Are Given Bill Classing Tie-In as a Misdemeanor

ST. PAUL, Minn.—A bill aimed at prohibiting dealers from requiring purchase of accessories or attaching other conditions to the sale of merchandise has been introduced recently in the Minnesota state legislature here.

The bill, particularly aimed in the direction of automobile dealers and some appliance dealers, as well as other types of business, would make violations subject to penalty of a gross misdemeanor charge.

The measure has been opposed by most retail associations here as a "harmful" piece of legislation at this time in view of current business conditions and need for favorable impression in the public mind toward business generally.

The bill reads: "Any retailer or wholesaler, engaged in business within this state, who sells, offers for sale, or advertises for sale, any article, goods, wares, or merchandise is prohibited from requiring any purchaser, or prospective purchaser, to purchase any accessories not included in the list price of the article, goods, wares, and merchandise sought to be purchased, or to require any other condition precedent to the consummation of the sale."

It further states that "any person, firm or corporation, or agent of any firm or corporation, whether as principal, agent, officer, or director, for himself, or itself, or for another person, firm, or corporation, wilfully violating provisions of this act, is guilty of a gross misdemeanor."

Laundry Roundtable Set For New York Feb. 23

NEW YORK CITY — "The Home Laundry Today" will be discussed at the second session of the "Workshop for Electrical Living" sponsored by the Electrical Women's Round Table, Inc. which will be held here on Feb. 23.

Sessions will last all day at the Auditorium at 570 Lexington Ave. Seven speakers are slated to cover the various aspects of washing and ironing.

Speakers already scheduled include Lawrence Wray of *Electrical Merchandising* magazine; Carl Bredahl, manager of the Better Homes Bureau, of Westinghouse Electric Corp.; and Helen Kendall of Good Housekeeping Institute.

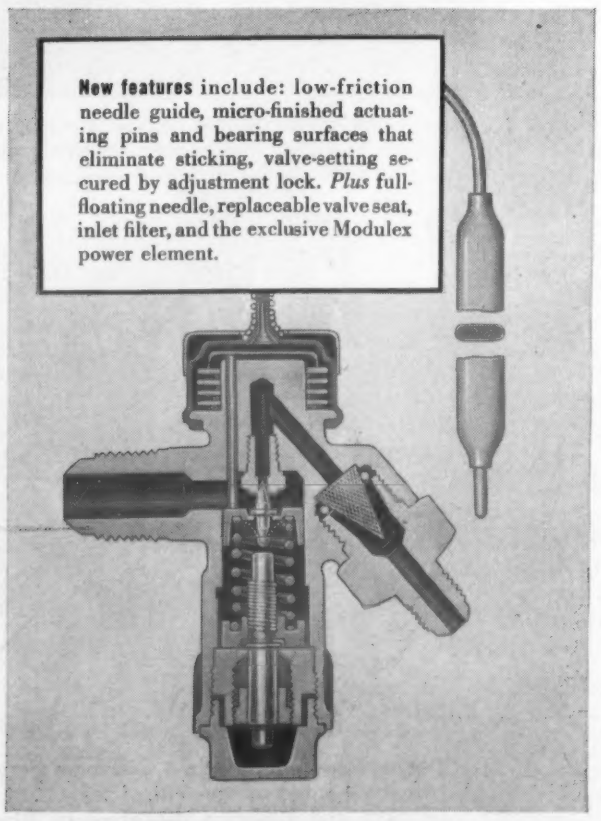
Why not Profit from Experiences of others...

"We've saved many dollars in job time on rebuilding and repairing by using precision-built Frigidaire parts. They're far superior in every way." says Forrest C. Hershey, of Holbrook Refrigeration, Inc., 1514 W. 7th Street, Los Angeles, Calif.

"It's easier on servicemen when they have Frigidaire precision parts to work with, and, at the same time, the job gives greater customer satisfaction," says J. Earl Jennings, of C. D. Jennings Co., 4435 Toulouse Street, New Orleans, La.

"We've enjoyed big business from some of the largest chain stores in our area for many years, largely because we use dependable Frigidaire parts," says G. L. Reed, of Reed's Refrigeration Service, 4 North Central Avenue, Baltimore, Md.

Frigidaire Service Parts mean Good Business For You!


New features include: low-friction needle guide, micro-finished actuating pins and bearing surfaces that eliminate sticking, valve-setting secured by adjustment lock. *Plus* full-floating needle, replaceable valve seat, inlet filter, and the exclusive Modulex power element.

Frigidaire's *New* Modulex Expansion Valves offer dependable operation, accurate control — are easy to install, warranted for one year.

Like other genuine Frigidaire precision-built parts, Modulex thermostatic expansion valves are the choice of thousands of experienced servicemen. These men will tell you that the newly improved Modulex valves operate with complete dependability, eliminating many costly call-backs. What's more they save time and trouble on the job—can be installed in any position, inside or outside the fixture—and you'll appreciate their compact size when you're working in "close quarters."

Most of all, you'll like the precision control possible with Frigidaire's exclusive Modulex thermostatic bulb. This unique power element, proved in 10 years of successful use, responds only to temperature changes at the bulb itself. Changes at valve body, or along the capillary tube, do not affect valve operation. In fact, tests prove the Frigidaire Modulex valve continues to function perfectly even when completely frozen in a ball of ice, or subjected to unusual heat conditions. Highest efficiency is obtained through full use of cooling unit surface.

FREE! Frigidaire Parts Catalog. For full information about all Frigidaire service parts, write for your free Frigidaire "Parts" Catalog today: Frigidaire Division, General Motors Corporation, 1336 Amelia Street, Dayton 1, Ohio.

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Please rush my free copy of your parts catalog—
"Genuine Precision-Built Frigidaire Parts and Accessories."

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FRIGIDAIRE
Parts and Accessories

FIRST in the field...
JARROW PRODUCTS
NEW
***SPEED-ANGLE CHARGING HOSE**

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Speeds up charging and purging. No flexing necessary. Hose life is prolonged by eliminating sharp "right-angle" bends. Gasket cannot blow out.

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BAKER

REFRIGERATION SINCE 1905

ENDURING QUALITY

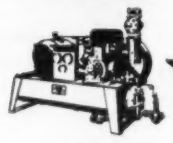
BAKER

AIR CONDITIONING
AND REFRIGERATION

in Freon and Ammonia

BAKER'S EIGHT STARS

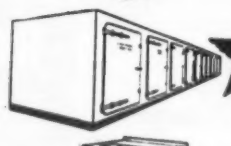
FREON *Compressors and Condensing Units*
1 to 60 h. p.



AMMONIA *Compressors and Condensing Units*
2 to 125 h. p.

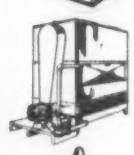
BAKERAIRE *Packaged Air Conditioners*
3, 5, 7½ and 10-ton models

CENTRAL-AIR *Packaged Central Station*
Air Conditioners up to 40 tons



KOLD CELL *Reach-in Locker Units*
Up to 320 Lockers

BAKER ICE-FLO *Ice Cube Machine*
Up to 4,000 cubes per day



AUXILIARY EQUIPMENT *for every kind of installation*

AMMONIA VALVES and FITTINGS
all types and sizes

Certain territories are open to well-established Distributors looking for a really broad franchise.

Baker Ice Machine Co., Inc., *General Offices* **South Windham, Maine**

Factories at Omaha, Nebraska and South Windham, Maine

'Waltzing Range' Gets Lit Up, Stops Traffic

BRIDGEPORT, Conn.—The "waltzing range" display—a deluxe two-oven push-button range model which glides around a small platform—has been announced by J. F. McBride, sales manager of the General Electric range division.

Without human control, the display glides and turns on a miniature stage, oven doors open revealing neon oven units which reflect a short selling message through clear plastic, and push-button controls light up. A special display panel on the back of range points up the "Speed Cooking" feature.

The display is designed to be used as a traffic stopper in retail outlets and, unlike many elaborate mechanical demonstrators, requires no attendants. General Electric dealers may book the "waltzing range" through their distributors for a rental fee of $25 a week.

Although only one of the new displays is in operation, it is planned to produce additional models, McBride said.

Nebraska Court Upholds Minimum Markup Law

LINCOLN, Neb.—The Nebraska Unfair Sales Act, requiring a minimum markup for retailers and wholesalers, was declared to be constitutional by the state supreme court.

In upholding the law, the court said: "Where regulatory statute prohibits price discriminations made with the intent substantially to lessen competition or to create a monopoly, or to injure or destroy the business of a competitor, constitutional inhibitions are not infringed.

"In the exercise of and within the limits of its police power, the legislature may forbid that which it deems to be an existing evil and it may limit its prohibitions to matters which . . . menace public welfare."

Louisiana Firm Has New Name

BATON ROUGE, La.—Low-Temperature Equipment, Inc., has amended its charter, changing its name to Southeast Distributors, Inc., and increased its capital stock to $30,000.

Denver Store Has Customers Fill Out 'Didn't Have' Slips with Good Results

DENVER—A simple idea which has helped the appliance department of the Denver Dry Goods Co. to adjust its inventory more closely to "what the public wants" is asking customers to fill out "You Didn't Have It" slips when wanted merchandise proved unavailable.

Use of these slips, printed on blue paper, with space for the date, name of the wanted item, department, color, size, and approximate space, has proven far more beneficial than the standard department store "want book" or "lost sales record," according to the management.

"While most of our salespeople try to keep a conscientious record of sales lost when the customer could not find the merchandise she wanted," it was pointed out, "frequently no notice of this ever reaches the buyer's office.

"The want book may be difficult to find at the moment, or the salesperson may be waiting on so many customers that she has no time to jot down a reference to the lost sale. While there may be four or five lost sales per day, the chances are that employes will not remember to enter them in the want book at all."

Thus, Denver Dry Goods has transferred this job to the customer herself by putting up wooden racks here and there around the counter, each containing a neat stack of "You Didn't Have It" slips, and a mechanical pencil chained to the fixture where it can easily be seen.

At the back of the rack is a slotted box in which the slips are deposited. Small signs indicate "If we were out of the merchandise you requested, please make out one of these slips."

Many shoppers chagrined at inability to buy a needed item in the department have taken advantage of the plan, filling out "You Didn't Have It!" slips at once, and even going so far as to enter comments about other needed merchandise on the back. A line of type reading "Please write any other comments on reverse side" encourages them to expand.

Dozens of valuable suggestions, not only as to the inventory, but as to display, or arrangement, have been weeded out of the slips, which are collected daily and turned into the buyer's office.

Salespeople save time now and apologize when the customer is disappointed. They indicate the stack of "You Didn't Have It!" slips and invite the customer to fill one out to guarantee that she won't be disappointed a second time.

Unless the shopper's request has been very superficial, most of them follow the suggestion, it has been the appliance department's experience. Numerous items have been added to the inventory with a worthwhile turnover because of these slips.

Hotpoint Announces Dates For 3 'Use-Value' Schools

CHICAGO—Hotpoint Institute has announced the dates for its three Use-Value training schools during the first half of 1949.

Mrs. Selma Andrews, Institute manager, said that the first would be held Jan. 24 to 28, then March 14 to 18, and May 16 to 20. She said that several openings remained for additional utility home service people, especially directors, who might be interested in taking this manufacturer-sponsored course.

The schools to be held on the announced dates will be at the company's Chicago headquarters. Other schools will be held periodically throughout the year in the field territory for the benefit of local electric utility companies.

Westover-Wolfe, Inc. Changes Name To Eliminate Confusion

ALBANY, N. Y.—Westover-Wolfe, Inc., distributor of electrical appliances, has changed its name to Nyver (New York-Vermont) Distributors, Inc.

Oliver M. Wolfe, vice president, said the change was made to distinguish the wholesale business from three other firms.

Officers of the firm remain the same. In addition to Wolfe, they are president, Wendell Westover, on leave of absence with the Reserve Officers' Association, and secretary, F. M. Conney.

U.S. Supreme Court May Clarify Its Basing Point Decision In Pending Case

WASHINGTON, D. C.—The much-debated question of whether or not the practice of absorbing freight charges is legal may be answered this year by the Supreme Court.

The court will review the decision of a lower court which upheld an order by the Federal Trade Commission ending the basing point system of pricing used in the rigid steel conduit industry.

Belief here is that the forthcoming ruling of the Supreme Court will clarify its decision made last year in the Cement Institute case. In this case, the high court ruled that the cement industry had conspired illegally to fix prices by use of a basing point system and ordered compliance with an FTC order forbidding the system's use in that industry.

The decision has since been widely interpreted as outlawing all basing point pricing systems and meaning that only f.o.b. pricing is legal. As an outgrowth of this controversy, a measure which would make use of delivered pricing systems legal if they were not the result of conspiracy is now under consideration by a Senate commerce committee.

In the rigid steel conduit case, the FTC entered an order against all major manufacturers and several of their officers in June, 1944. After the order was upheld by the Seventh Circuit Court, the defendants appealed to the Supreme Court.

The FTC, which urged granting of the appeal "in the public interest," has maintained that freight absorption in itself has not been made illegal by any of its orders—only the system's misuse.

(Another development last week was introduction of a bill which would permit individual manufacturers to continue absorbing freight charges for two more years, provided they do not violate anti-trust laws. During this period, Congress would study the whole problem of the basing point pricing system.

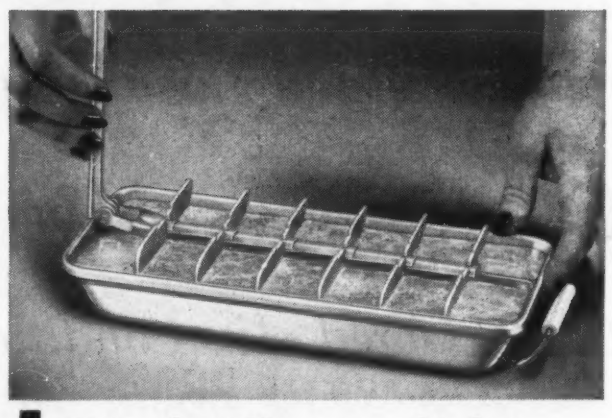
(The bill was introduced by Rep. Walter of Pennsylvania, a member of the House Judiciary Committee. He said the measure would give Congress time to clear up the uncertainty resulting from the Supreme Court's decision in the cement case.)

Deepfreeze Names Toledo Outlet

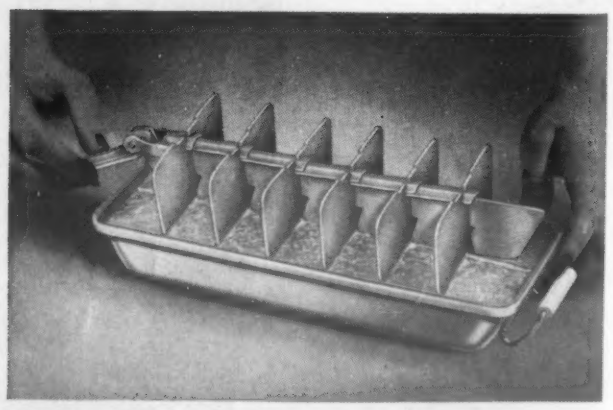
TOLEDO—The Joseph P. Smith Co. here has announced that it has been named exclusive distributor for Deepfreeze home freezers and Frost-air refrigerators in northwestern Ohio and southern Michigan.

No Other Ice Tray gives You this "Magic Touch" Demonstration!

Refrigerator prospects are impressed instantly and convincingly by the swift, simple and striking Inland "Magic Touch" demonstration. They want all the ice trays in their refrigerators to work the marvelous "Magic Touch" way. For them—no more inconvenience, no more prying, thawing, splashing or handling dripping blocks of ice. It works like this . . .



1 Raise the "Magic Touch" lever



2 Lift the grid from the tray

3 All cubes are free, separate, dry

Take advantage of the compelling sales appeal in this demonstration. Make sure that the automatic refrigerators you sell this year are fully equipped with Inland "Magic Touch" Ice Cube Trays, designed and made to give faster freezing and longer service. And stock them amply for replacement sales. Get these customer-demand sales and profits.

New refrigerators fully equipped with Inland "Magic Touch" Ice Trays give your customers complete ice convenience

"Magic Touch" Ice Trays by INLAND MANUFACTURING

INLAND MANUFACTURING DIVISION
General Motors Corporation, Dayton, Ohio

for draft and bottle beverage coolers...

IDEAL Speed-Freeze PRODUCTS

IDEAL COOLER CORPORATION
2953 EASTON AVE., ST. LOUIS 6, MO.

STAINLESS STEEL
LA CROSSE
ICE CUBE MAKER

Designed to meet the demand for both production and storage in one unit. La Crosse leads the field in this newest addition to their complete line of refrigeration models.

SPECIFICATIONS:

Production capacity—21 quick release trays—14 cubes ea.
Storage capacity—approximately 900 cubes plus 294 cubes in trays.

LA CROSSE COOLER CO.
2809 Losey Blvd. So., La Crosse, Wisconsin
Export Representatives: Melvin Pine & Co.
Cable address: Eximport 80 Broad St., New York 4, New York

The green fields of the cash-buying market have been pretty well grazed over . . . cropped to the roots. Competition for what's left gets keener and tougher.

But there's a lush field all around you that has scarcely been touched. A survey of your territory will show up a regiment of medium and small-sized business establishments...markets, restaurants, confectioners, furriers . . . whose owners can't pay cash, but given time and terms such as Commercial Credit offers, they'd be safe and profitable customers for you.

Why not make this business your immediate target?

Your local Commercial Credit representative can help you with valuable information on selling and handling the time-payment buyers. Give him a chance. Call him in *now*.

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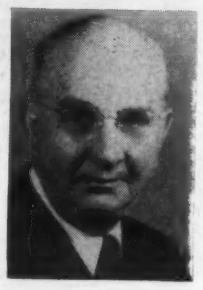
Callaway Declares Pre-War Veterans Should Teach Young Appliance Salesmen Old Tricks

Sees Dynamic Decade for Air Conditioning, Commercial Refrigeration

By George M. Hanning

DETROIT—"Commercial refrigeration and air conditioning, particularly air conditioning, are going to carry the ball for the refrigeration industry during the next decade," R. F. Callaway, recently retired head of the Frigidaire Detroit branch, opined recently.



R. F. Callaway

"You can't stop the growth of air conditioning now any more than you can stop people from buying electric refrigerators and automobiles," he asserted enthusiastically.

"In my opinion, the business has the greatest possibilities of any in the country," he declared.

Callaway, who has been in the refrigeration sales field since 1922 and who has held a number of high positions in the Frigidaire sales organization since that time, foresaw ("if my 27 years in the field means anything") a great future for the entire appliance industry.

He reviewed highlights in the growth of the industry into its present form and gave his formula for successful selling. It is the way appliances have been sold in the past and will have to be sold again in the future if the industry is to continue to grow, he declared.

"Though the sales of domestic appliances are by no means going to lag, in my opinion, commercial refrigeration and air conditioning sales are going to make the greatest strides in the next 10 years," he said.

"The growth of air conditioning sales will come first in the commercial field. No restaurant, department store, or any other place of business, even with the comparatively short cooling seasons in the northern part of the United States, can now afford to be without it.

All 'Plus' Business

"When businessmen get so they hate to leave their offices to go home on summer days, then residential air conditioning will come into its own.

"For the dealer, air conditioning sales are all 'plus' business. No dollar that might go for some other appliance will go for air conditioning. Air conditioning does not replace anything. It is a new business. The man who buys air conditioning still needs a refrigerator, radio, and heating equipment.

"It's not like television for instance, where the dealer feels that his television sales are merely replacing radio volume. Television is in direct competition with radio and with the movies, and perhaps even stage shows.

"In the domestic appliance field," Callaway continued, "the time has arrived when it is necessary to train salesmen and get them out on the streets selling.

"Looking back on my 27 years in the industry I believe that a complete cycle has been made. When the refrigerator was out gaining public acceptance back in the twenties, the only way it could be sold was to go out and push some doorbells.

"Then when the war came, the government started telling us who could buy refrigerators and how much they were going to pay for them. Sales organizations were disintegrated by the country's military needs and the easier means of making good money.

"After the war, with a big backlog of demand, the dealers had become order takers. Customers were breaking their doors down to get merchandise. They could sell all they could get from the floor, so why take on outside salesmen?

No Trained Salesmen Today

"However, the time has come now when it is necessary to do outside selling again in order to maintain volume. And there are no trained salesmen to do it.

"The good pre-war salesmen who were trained in the cold-canvass school have set up dealerships for themselves. They have not yet realized that it is up to them to pass on the knowledge they gained in the field to their own salesmen.

"I know the dealers won't believe this, but it is true just the same," Callaway asserted.

"The bottleneck in the appliance industry today is in the salesmen. Just a short time ago, it was in merchandise. Dealers couldn't get enough of it. But today, they no longer can complain that they are not getting enough merchandise to put a man outside selling and make it pay him a good wage.

"Some dealers staunchly declare that they will never return to the cold canvass. I don't believe that.

Floor Traffic Won't Maintain Volume

"For one thing, I do not think they can maintain a large enough volume by just sitting back and letting floor traffic and advertising bring in the customers. A large enough volume, that is, to satisfy the manufacturers.

"The manufacturers have billions of dollars invested in this industry and they realize that the industry cannot stand still," he pointed out. "It must either go forward or backward. And they are not going to allow it to go backward if they can help it.

"Large volume department stores and appliance chains might possibly get by with floor traffic and advertising. But not the smaller appliance dealer. He must get out and beat the bushes. If he doesn't, he will find the appliance business gradually finding its way to a few concentrated markets and passing him by.

"Advertising is a great salesman, but it cannot replace the human one," Callaway warned.

"With all brands and types of merchandise available, people are no longer going to take the first appliance they find. They are going to shop around to get what they want. They are going to compare products and prices.

Follow Customer Home

"Even when they come into a dealer's store to look around, they are not going to be completely sold in the store. If the dealer is going to get their business he is going to have to follow up these customers in their homes so that he makes sure they do not buy elsewhere.

"And, without outside salesmen, how does the dealer know who in his territory wants and needs the appliances he has to offer? The housewife may not even know herself that she needs a new refrigerator, for instance. She may have had it for years and not realized that her needs have outgrown the refrigerator.

"A salesman in her home could point out the added advantages offered by the newer models and could see that her family and needs had increased considerably since the refrigerator had been purchased.

"Some dealers are afraid that housewives have an antipathy for door-to-door salesmen," Callaway observed.

Welcome, Door Bell Pusher

"That may be true. But on the other hand, it has been eight or 10 years since the door-to-door salesman has been coming around. A whole new generation of housewives have grown up since then. The door-to-door salesman might be a welcome novelty today.

"Just to give an idea of what dealers are missing by not canvassing, I was working on my lawn last summer. Working myself for several reasons—one of which was that I couldn't get anybody to do it for me," he smiled.

"While I was working, along came a man with an automatic sprinkler. He was just driving by and saw me there. So he stopped and asked me if I needed a sprinkler. He showed me what his product would do and I bought one.

"Then a truck driver came along with a load of top soil he was trying to sell. When he saw me he stopped and asked if I needed some top soil. I did need some and bought 150 bushels.

"A shrubbery salesman came along next and talked with me about some new shrubbery. Mine was getting to be rather unsightly and I had been thinking about getting some for a long time. I gave him an order.

"Now those men in one afternoon sold me a couple hundred dollars worth of merchandise that I needed and wanted," Callaway emphasized. "The only reason they stopped to talk to me was that I was out in plain sight, working on my lawn.

"Yet every one of my neighbors probably had a similar need to mine. But not one of these salesmen would so much as go up and ring their doorbells. The prospective business they passed up is inestimable.

"In my opinion, this industry has to return to the fundamentals of selling," he asserted. "New tricks may be developed, but the fundamentals remain the same. And they are just as good today as they were before the war.

Five Fundamentals

"These fundamentals stem from the late John H. Patterson, founder of the National Cash Register Co. I worked with that organization before I entered the refrigeration business.

"These fundamentals are:

"1. Get on common ground with the customer. That means he is not trying to fight you and you are not trying to fight him. You both have an open mind.

"Patterson had a trick he used to teach his men for getting on common ground with the customer. That is for the salesman upon entering a prospect's store to purchase something preferably from the proprietor or the man he intends to sell. It may involve only 50 cents or a dollar, but the transaction puts the merchant in a good frame of mind—he is taking in money.

"2. Make a proper investigation of the prospect's needs. That will prevent a salesman of wooden legs from trying to sell his product to a man with two good legs.

"A good example of this occurred just a short time ago on my farm down south. A salesman came all the way from Atlanta to see me and try to sell me some pre-fabricated construction materials.

"I told him that I hadn't thought of using pre-fabricated materials. What would he suggest I use them for?

Didn't Use His Head

"The only thing he could think of was a tool shed. As I had just spent good money to build a new tool shed, I told him I already had a tool shed and wished him an abrupt good day.

"If that man had only taken the trouble to look around the farm yard before he approached me—just to see what I might need the materials for—he would have discovered that I could have used them to build a hog house or any one of a dozen other things. But all he could think of was a tool shed when a brand new one was staring him in the face.

"That kind of an approach will never sell merchandise.

(Concluded on next page)

The Carrier Store Weathermaker

has Sales Appeal

8 Features That Make It a Best Seller:

- MORE COOLING PER DOLLAR
- LONGER LIFE, LOWER UPKEEP
- TAKES LESS FLOOR SPACE
- QUIET OPERATION
- A MODEL FOR ANY SIZE STORE
- STREAMLINED AND HANDSOME
- INSTALLED WITHOUT FUSS
- GIVES STORE ADDED PRESTIGE

THIS TRIM, good-looking Carrier Store Weathermaker was designed to provide efficient air conditioning day after day at low upkeep—and it does superbly. That, and other Carrier-engineered features, make it an easy seller—and a real money-maker for you and your customers.

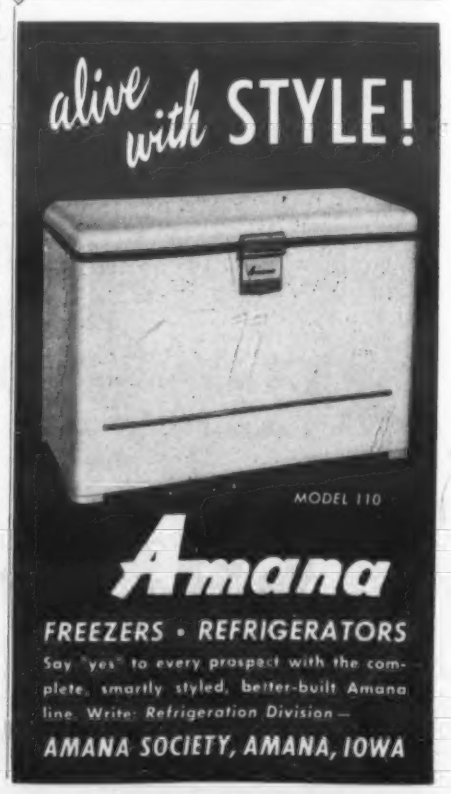
The name "Carrier" itself is a big selling point. Your customers know that Carrier stands for years of experience in the air conditioning field—and that any product bearing the name must be soundly designed and built for long, satisfactory life. Equally important, the Weathermaker has just what average-size stores want. It's compact, easy to install and very attractive-looking.

Carrier stresses all its selling points in hard-hitting advertisements and promotional pieces. They help you help yourself to more profits. For information, write Carrier Corporation, Syracuse, New York.

Carrier AIR CONDITIONING • REFRIGERATION • INDUSTRIAL HEATING

insist on genuine Marlo products

MARLO HEAT TRANSFER Since 1925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FREEZERS • REFRIGERATORS
Say "yes" to every prospect with the complete, smartly styled, better-built Amana line. Write: Refrigeration Division—
AMANA SOCIETY, AMANA, IOWA

How Refrigerator Salesmen Operated In Days When Buyers Were Scarce

(Concluded from preceding page)

"3. Once you have determined the prospect's need for your appliance, then point out the weaknesses in the present system. Usually the customer will agree to all the weaknesses.

"4. Then point out how your product will overcome those weaknesses to the prospect's advantage.

"5. Close the sale by asking for the order. Too often the salesman asks for the order before he has laid the proper groundwork that entitles him to the sale. He asks before he convinces the customer that this particular unit is the one he wants. In such cases, the customer's answer is almost certain to be 'no.'"

Callaway got into the refrigeration business back in 1922 when Frigidaire lured him away from National Cash Register to organize a sales force in Detroit.

Callaway related that when he was offered the job, he did not even know what an electrical refrigerator was. He said the first thing he asked for, before accepting, was a list of users of the product.

He was given a list. On it he discovered the name of one of his cash register customers, John Miller, head of Fred Sanders confectioners here. So Callaway called on Miller and asked him how he liked his electric refrigerator.

Miller was very enthusiastic, Callaway recalls. He said it was a poor product but a wonderful idea. He predicted that the electric refrigerator business would be an up and coming one.

That, Callaway said, decided him right then and there. He did not interview another user. He took the job.

Factory Handled Sales

In the beginning, he said, there were no dealers—there was no such thing as consumer acceptance. The factories themselves handled retail sales through branches.

When he took over the Detroit area, he blocked out the city into sales areas. Each area was given over to a supervisor. The supervisor had 7-10 men under him. They went out and pushed doorbells. They were selling a product that few people had even heard of and even fewer owned.

There was no such thing as floor traffic. Headquarters saw less than 10% of its customers. Sales were made in the field. Many at night when husband and wife were together.

As the industry grew, more branches and independent distributors were set up to handle retail sales.

Distributors Take Over

These distributors handled retail sales themselves, but in some cases franchised dealers in outlying areas.

As the industry continued to expand, the distributor found himself with hundreds of salesmen. The Frigidaire Detroit branch had 700 employes in the late '20's of which 600 were salesmen. About 450 of these sold domestic refrigerators—house-to-house—and the others sold commercial refrigeration. And every one of them, Callaway said, made a good living.

When the depression came along, the distributors found that they could not handle such large numbers of salesmen. They found it more expedient to pull out of the retail field and turn it over to dealers already established in natural shopping centers.

"This is the way the industry is set up today and I don't think that picture will change," Callaway observed.

The first dealers to get into the appliance picture were the electrical goods and hardware dealers. They began coming in about 1923 in the out-state locations.

Utilities Liked Load

Then the utilities became concerned about the service that electric refrigerators were causing on their lines. They also were interested in building up load.

Some utilities at one time even proposed that their own servicemen handle refrigeration service. They sent their men to the factories to learn about servicing.

However, they soon found out that there was more to servicing refrigerators than met the eye. In addition, they discovered that distributors and dealers were perfectly capable of servicing the merchandise they sold, according to Callaway.

The department stores were next to come into the picture—after some public acceptance had been gained Callaway recalled his efforts in getting Crowley, Milner, & Co. in Detroit to take on the Frigidaire line back in 1925. He believes that Crowley's was the first department store to handle electric refrigerators.

He said that when Crowley's agreed to take on Frigidaire, he was to furnish the salesmen and pay them. Crowley would finance the sales and provide the selling space.

From the beginning, he said, the appliance department was gradually built up.

Fourth type of outlet to come in as dealers was the furniture store. These stores took on appliances as an added item. Their main interest was in selling a completely furnished home, including the refrigerator, range, and other kitchen equipment.

Most furniture stores soon found that they needed to set up appliance departments and put on outside salesmen.

All of these were specialty outlets that went out and pushed doorbells to build their appliance volume.

Callaway reiterated his belief that in order for retailers to get the fullest volume they will have to go back to the old time way of selling.

Youngsters Are Spoiled

"The situation today," he said, "is like parents who have worked and struggled all their lives to make a living and get up in the world and then have spoiled their children by giving them everything.

"It is up to old dealers who have come up the hard way to train their new, young salesmen the same tricks that they used so successfully to make sales before the war."

Callaway said that he considered one of the biggest problems faced by dealers today is trade-ins. "A dealer has to find some method of buying an old refrigerator from a customer at a price that will allow him to recondition the unit and still make a profit on its resale. If he can't do this, he will be better off if he never accepts a trade-in.

Got To Take Trade-Ins

"However, no dealer will be able to afford not to accept trade-ins in the competitive days ahead. Trade-ins are going to be even a bigger factor than they were before the war. After all, there are more old refrigerators in use today.

"The dealer will have to work out some arrangement for handling trade-ins profitably. He must either set up a reconditioning shop himself to put the refrigerator in shape for resale or he will have to sell it to a service firm who will put it in shape and then sell it back to him.

"Incidentally, a good paint job is one of the most important steps in the reconditioning process. That is what the customer sees first and will impress him most.

"Of course, the unit should also be put in good mechanical condition so that it can be guaranteed for not less than 90 days. A dealer should always guarantee his refrigerators unless he sells them 'as-is.'"

Six Get Sales Posts with Nashville Distributor

NASHVILLE, Tenn.—Arthur Boyd, merchandise sales manager for Braid Electric Co., distributors of radio and electrical equipment here has announced several new appointments in the merchandise department.

They include:

Orman Johnson, who has been city salesman, is assuming the post of advertising and sales promotion manager.

Henry Hunter, formerly covering the upper Tennessee and southern Kentucky territory, is now handling radio and appliance sales to dealers in Nashville and in Davidson county. Jimmy Sisk is named eastern supervisor of radio and appliance sales.

Harold Ogles, who has been assisting Boyd for several months, has been named western supervisor of radio and appliance sales. Charles Lester takes over Ogles' former duties in the office.

William Pybas, formerly with Planters Hardware Co., in Hopkinsville, Ky., will sell dealers in Kentucky-Tennessee border counties.

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INSIDE DOPE

by GEORGE F. TAUBENECK

(Concluded from Page 1, Column 1)

more incompetent they were the quicker the release was forthcoming, while the efficient ones were practically frozen in their jobs. The result was that the incompetent ones very quickly got to Grade 5 or 6 while the good ones starved it out as long as they could at Grade 3 or 4 and then quit to go back home or join the Waves."

Eventually, nearly all the hourly-paid bureaucratic minions loaf in Washington. "Slow-down" tactics not only keep the cows in clover, but also preserve the jobs of unneeded supernumeraries.

These stretched-out jobs acquire political potency, because the jobholders are also voters, and so are their friends and relatives. That's how a vast and over-expanded bureaucracy, whose prime desire is to perpetuate its "rights" to lazy jobs, could destroy a democracy in time.

When the non-productive, wasteful, delaying, progress-blocking government payrollees become so numerous that they can influence the election or re-election of representatives in Congress—as happened during FDR's regime—democratic processes are perverted.

The OPA Nightmare

Blithely and possibly unwittingly, the worshipped Franklin Delano Roosevelt not only sanctioned the pyramiding of bureaucracy in America, but damned near wrecked the country in the process.

The OPA (Office of Price Administration) was a particular haven for the let's-make-America-over schoolboy reformers during that unhallowed FDR Regime.

Led by a still-wet-behind-the-ears "economist"—a lanky character by the name of John Galbraith (who now, so help us, is one of the editors of Henry Luce's *Fortune* magazine)—these OPA reformers almost damaged the American System beyond repair.

With their suddenly acquired power, they attempted to "reconstruct" (we quote Galbraith's own overworked verb) our amazingly successful Free Enterprise System into a deadening Socialist pattern.

They didn't succeed, of course, but it isn't because they didn't try.

The American System, and congenital American Patriots who were drafted into the OPA (like forthright Lou Maxon and Lee Baker and even the mild, conciliatory Prentiss Brown) were so resilient and so inventive and so resourceful that the youthful Reformers from Harvard couldn't cope with them, at first. Galbraith's Battalions had to run back to Mama (Eleanor) for help when they bumped heads against these rugged characters.

Don't think that rugged defenders of the American System such as Maxon and Baker and Brown didn't have their bad moments, though. They were subjected to a frightening cross-fire of character assassination every time they stuck their necks out to defend an important American Principle.

Figures Do Lie

There seemed to be an insane desire on the part of the OPA "economists"—those diploma-flaunting "grads" of left-wing Eastern colleges who bosomed up to Roosevelt's New Deal and suckled under Galbraith—to gather "slanted statistics" as to the earnings of various industries and individual business enterprises.

It was their hope that through their "angled" questionnaires they could bring to dredge up data that would crucify our experience-tested manufacturer - to - distributor - to - dealer merchandising system (which has continually lowered prices to the eventual consumer).

Case history:

When John Galbraith was tossing down extremely exceptionable ukases to his OPA minions nearly every member of our own refrigeration industry was required to file a five-year earning statement, plus a complete breakdown of his P & L for that period, together with current operating costs, etc.—before any consideration would be given to his request for a price increase.

These "figures"—upon the collection of which American industry spent so much money and time—were, of course, placed in the OPA "case" file, along with all other sustaining (or controversial and damaging) data which could be found and twisted.

From these insufficient and inverted records the OPA "economists" were supposed to arrive at a determination of what constituted a fair and allowable increase in price for any product—or, to disallow a plea for a price alleviation by a deserving producer.

Later, these expensively-collected figures were warped and juggled by bureaucrats so as to damn the distribution cost "spread."

When the OPA, under Galbraith, overlorded its power and prerogatives upon America during World War II, confused businessmen spent most of their time defending themselves against attacks from Eleanor's proteges, instead of working to win the war.

And all these attacks were based upon the "figures" collected and "weighed" by believers in Socialism who had infiltrated this key U. S. bureau.

Red Ink 'Planned'

As it turned out, Galbraith's stooges kept most of these American businessmen—after they had petitioned reluctantly and expensively for surcease from losses—waiting from two months to infinity for price decisions.

In many of these sad cases, the petitioning American entrepreneurs operated in "the red" during those fretful months.

Eventually, their cases usually were compromised by a random OPA attorney who finally got tired of the ceaseless niff-knawing and bickering and handed down an off-the-cuff determination. His decisions certainly weren't judicial, and often they were frightfully unfair, as many petitioners who survived the OPA Era will testify. However, he *did decide*. And that was something the "economists" found difficult, if not impossible.

Eyewitness Account

An interesting sidelight observation about this "planned economy" OPA nightmare is the following testimony from an important former OPA official:

"Sometime after I had left the OPA—when the boys were deep in the stupendous problems of pricing us *out* of the war economy—I sat at the desk of one of the higher executives of the remnant New Deal government.

"He informed me that they were going to ask our industry for complete and extra-detailed operating figures—covering the five-year period prior to the war.

"I told him that such figures had already been obtained from our industry, and could be found in his office. He rejoined that he realized that these figures had been given to his bureau by our industry, but he also had heard that these records had been lost when the OPA offices were moved.

"I then said to him: 'The files on the chair over there look quite familiar to me.'

"He grunted, but didn't shift an eye-muscle.

"Thereupon I asked him if he would mind if I looked at these files—and he waved his hand toward them, grandly.

"To cut this long story short, the files on that chair—six feet away from his desk—contained all the information he was preparing to ask our beleaguered industry to furnish once more. . . .

"I would like to have for my family's annuity the money that was spent needlessly every week by our industry's manufacturers and small business men in auditing, and in traveling to Washington at the OPA's command during World War II.

"When I first went into government service as an OPA executive, my department was headed by a man of exceptionally high intelligence, who bore a fine reputation, and who obviously was a grand character.

"He was not a business man, of course, but he had been a college professor. He didn't want to make over our system of distribution; but he was trying to be an honest administrator. He attempted to do a conscientious job for the war effort, for the patriotic manufacturers, and for the long-suffering public—all at the same time.

"However, he didn't last long. He wasn't fired—he was merely shunted into oblivion—for the one and only reason that he just wasn't radical enough to suit the OPA 'crowd' which possessed political power.

"The OPA 'leftists,' who were apparently backed by the largest and most irresponsible pressure group within the Roosevelt Administration, did not solve America's price problem.

"Rather, these 'left-wing' OPA confusers were trying to subvert a *completely satisfactory* system of merchandising—which had worked marvelously for years, and which had given employment to millions—into a Planned Economy serfdom."

We Bear Witness:

As a concrete example of this type of subversive and possibly treasonable leftist "planning" we can quote what one of the higher ranking Roosevelt administrators told us during one of our own intermittent tours-of-duty in Washington during World War II. Here's what he said:

"There is no place in the post-war picture for the young veterans who want to establish their own dealerships, so far as the retail appliance business is concerned. Appliances should be merchandised through large chain-store-type national organizations which own and operate their own retail stores.

"This type of operation would necessitate the withdrawal of both the distributor and the independent appliance dealer from the merchandising blueprint, and it would also seriously affect the department stores' markups.

"However, as we see it, these integrated chain-store merchandising operations should bring appliances to the public at considerably less cost."

Cartels, no less. Big government in, little business out. That was the theory and the pattern—and still is, so far as the Socialist-Communist Reformers are concerned.

Lest We Forget

To revert back for a moment to the "figures" requested from business and industry by Galbraith's OPA reforming henchmen:

After the expensively-supplied statements were scanned, pulled apart, and made to represent what the OPA transmogrifiers wanted them to reveal, a left-handed, sometimes embarassing decision was handed down to the beleaguered petitioner.

That decision often was determined either in a coffee shop or a toilet. And *always* the petitioner was kept waiting far beyond the end of his patience and sometimes until he had exhausted his resources—whether he won a temporary price-alleviation or lost his shirt.

The boys who handed down the purposely delayed decisions had the time of their lives while making businessmen sweat.

Heaven only knows how many millions of dollars these delaying tactics cost America's manufacturers—who, after all, were merely trying to recapture unexpected costs which had been *inflicted* upon them *through no fault of their own*—and who, at the same time, were spending millions of dollars of their stockholder's money in re-equipping their plants to accommodate *MUST* war orders.

Galbraith's "let's-reform-America" interlopers stalled so long on these decisions that they wore most manufacturers down—or kept them foundering in red ink—until the final strokes of the OPA axe severed them completely from all hopes of ever reattaining their rightful positions in the post-war picture.

More Direct Testimony

"If I never saw another lawyer in all my life I saw all I needed to in Washington," a famous dollar-a-year-man testifies, after reading proofs of this Essay. "Young boys just out of law school who couldn't distinguish their posteriors from holes-in-the-ground were settling the affairs of manufacturers who had given their lives to building up their businesses," he continues, in a high dudgeon.

"Actually, many of the decisions handed down by these young lawyers were based on upstairs-commended compromises with ward-heeling politics, rather than on evidence and logic.

"How well do I remember a morning when before me appeared two OPA officials wanting to know why I did not fill the open spaces in the personnel chart assigned to my division," this dollar-a-year man recalls.

"I hadn't these pre-budgeted assistants because I didn't need them. But my honesty in saving taxpayers' money wasn't appreciated at all.

"If any legislator can ever put through Congress a regulation which rewards the head of a Civil Service department for getting along with the fewest people possible to do the necessary work expected of that department—instead of paying him for hiring all the people he can possibly get on the payroll—we will have saved this country not millions but billions of dollars.

"From my observation I will make the unqualified statement that about 50% of the people that were on our wartime OPA bureaucratic payrolls were non-essential. Work was actually created for these arrogant loafers; and the Civil Service system obviously connived to find unnecessary jobs for the undeserving.

"Of course, the bulk of this 'work' was 'paper passing' and double and triple handling of those papers; but the taxpayers still had to stand for it.

"As for me, I'm fed up with Bureaucracy. Never again will I be such a sucker as to compromise my Sense of Right and Wrong by accepting a government job."

'Policy' Is Politics

Like sex, steaks, and automobiles, bureaucratic "policy" is timeless and expedient at one and the same time. That's one reason it's so confusing.

No matter Who does something wrong, no matter What simple function is ballixed up, no matter How the Whens, Wheres, and Whys of any government dealings are obfuscated, bureaucracy always survives. It's the only real "policy" in any government.

The objective isn't nearly so important as the System. That's what dutiful corporals, sergeants, and especially Colonels learn when they get the hang of a military bureaucracy.

Civilians who suddenly discover oak leaves on the shoulders of their unaccustomed uniforms never quite get used to that notion. Neither do lent-to-bureaus businessmen.

No wonder career diplomats, colonels, and department heads hate these business-trained temporary bureau executives. Businessmen lent to government are always asking "Why, How, When, Where, and Why Not?" instead of "Who?"

(To Be Continued)

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Profits from Farmer's Milk Cooling Equipment Pay Debt within 15 Months

DAVID CITY, Neb.—Installation of mechanical cooling equipment for milk production in Butler county has increased greatly during the past year as farmers are turning to certified milk production for greater profits, and are convinced that best profits are obtained when such production is on a scientific basis.

One of the best Grade A plants in Nebraska has been constructed on the S. B. Manning farm near David City. Dale Howe, manager and operator, explained that the area devoted to dairy operations is kept dry by natural gravity and drainage tile. Water is supplied to the milk house by an electric pressure pump which also keeps full the watering tank 50 feet below the loafing barn in the feed lot.

The milking barn-milk house combination is divided by the regulation two-door vestibule, and the milk house is equipped with the latest in vats, racks, electric heater, electric milk cooler, and cleaning implements.

Harvey Lehr, whose farm is nine miles from David City, reports he has spent thousands of dollars bringing his milk production up to Grade A requirements in the past two years, and that the premium paid the bill in 15 months time. His sanitary milking barn, equipped with electric milking machines, also connects via two-door vestibule with a sanitary, electric-equipped milk house which includes mechanical refrigeration for cooling, where the milk is placed immediately after coming from the cows.

The Wesley Glock farm, 11 miles from David City, is another layout which is rapidly building up to Grade A requirements. A separate milk house has been constructed with a water-cooling system and special facilities for washing equipment. Milk from the Glock farm now earns a 30-cent-per-100 premium and will reach Grade A premium of about 60 cents when he completes his construction.

Super Market Institute Plans Convention In May

NEW YORK CITY — The twelfth annual convention of the Super Market Institute will be held at the Stevens hotel, Chicago, May 8 to 12, it is announced by S. N. Goldman, president, Humpty Dumpty Food Stores, Oklahoma City.

"With prices declining and supermarkets in a constant fight to cut costs and maintain their very slim profit margin, members of the institute are looking forward to the liveliest discussion of their business in many years. Early indications point to the largest participation by manufacturers in the exhibit sessions," Goldman predicted.

The Super Market Institute is a national organization of supermarket operators, with members operating some 4,100 stores in the United States and Canada.

Noma Electric Profits Drop Off During 6-Month Period of 1948

NEW YORK CITY—A net profit of $1,439,328 on net sales of $22,943,859, or $2.26 per common share, for the six months ending Dec. 31, 1948 were reported recently by Henri Sadacca, president of Noma Electric Corp.

For the same period in 1947 Noma made a $2,762,890 profit on sales of $28,579,509, or $4.33 per share.

Akers Heads Graybar In Lansing

DETROIT—J. D. Akers has been appointed manager of the Lansing branch of the Graybar Electric Co. here, the firm has announced.

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CAPACITIES FROM 300-5,400 GALS.

RECO-FAB Hardening and Freezing Rooms are shipped complete with all required Refrigerating Equipment and complete assembly instructions. All equipment bears our standard one year Manufacturer's Warranty.

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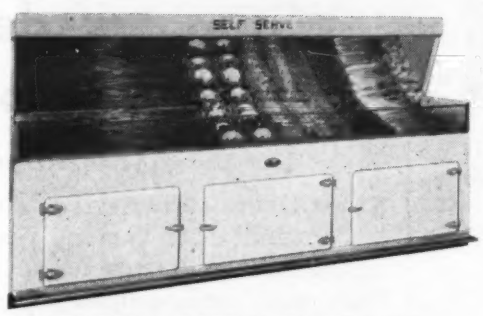
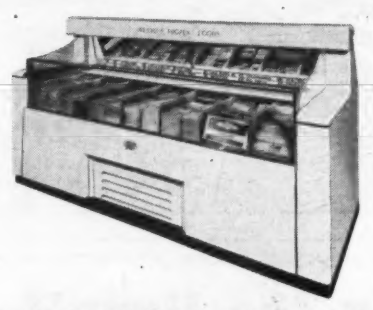
Ice Cream Case Sells Fast In 'Mechanized' Grocery

In accompanying photo Tommy Thompson (right), Frigid-Freeze sales representative, and Clarence Saunders, inventor of the "Keedoozle" (mechanized marketing) food store, stand before a Frigid-Freeze open-top spot-special ice cream cabinet. The "Keedoozle" store, recently opened in Memphis, Tenn., permits the shopper to record selections on a paper tape which later automatically delivers the items. Klinke Bros. Ice Cream Co. installed the cabinet at right. The case is said to have moved 283 pints of ice cream in first four days.

JUST A FEW OF MORE THAN 60 NATIONALLY ADVERTISED PROFIT-MAKERS

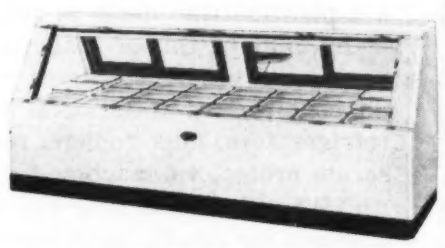


UL2610 Open Self-Serve Case—any number may be joined for continuous display of dairy products, produce or meats. Has controlled temperature and humidity and famous Sherer "store wide" vision.

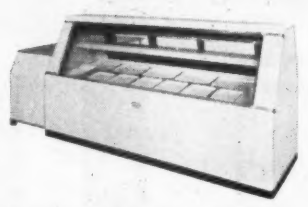


2508M Open Self-Serve Case provides a sales-building, easy-to-reach display for frozen foods and ice-cream. Uniform cold throughout the case.

2410 Open Self-Serve Case will quickly pay for itself by inviting more shoppers to buy more meat and dairy products. Easily converted for produce.



500 Meat Display Case, the super deluxe meat case that has extra depth, extra visibility and is so easy to work out of. 8, 10, 12 ft. . . . top display and double-duty models.



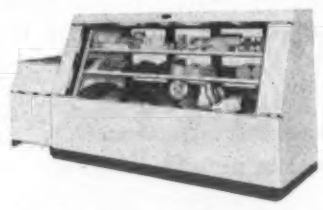
UL2200M Meat Display Case has unique lighting arrangement that spotlights the entire display area on both shelves. Also available without housing and unit.

Take a dealer's word for it—

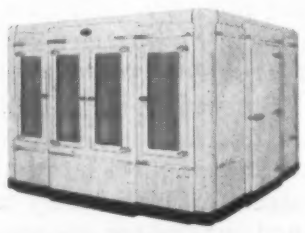
"You can bank on the Sherer line to build volume, profit and dealer reputation"

If you want a top quality line of commercial refrigerators that is easier to sell . . . that stays sold . . . then check these reasons why you should turn to Sherer. Big and complete; you can make more sales more places; open new fields; and capitalize on every opportunity to sell refrigeration in your area with the Sherer line. Sherer's policy of specialization results in undivided attention to the development of new features and equipment that gives you a line of leadership products that are sold more easily at a profitable mark-up and a competitive price. Sherer's reputation-building quality helps build you a greater net profit too . . . as you spend less time in servicing . . . more time in selling. In addition, Sherer national advertising pre-sells for you. A complete dealer-help program is available to help you tie-in and get your share of this ready-made market.
For greater sales and more profits today and tomorrow, you can be sure with Sherer.

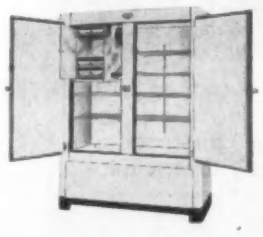
UL2000 Dairy Self-Serve Case is available in 2 sizes — 7 ft. and 10 ft. It has more shelf area per square foot of floor space.



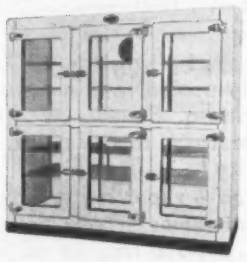
1700 Delicatessen for display of cold meats, baked goods, dairy items and salads — 5 ft. and 7 ft. double duty models.



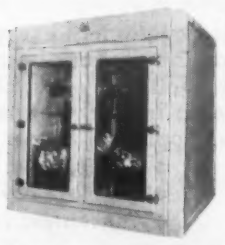
Walk-in Coolers for refrigerated storage of large quantities of perishable foods. There are many sizes to choose from — porcelain clad or plain.



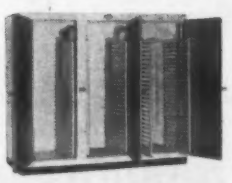
30-21M Refrigerator has an ice-maker coil with maximum capacity of 192 large cubes. Zero storage up to 60 pounds of frozen foods. 11 refrigerator models from 20 cu. ft. to 70 cu. ft. capacity.



70-6G Glazed door Refrigerator, a maximum capacity reach-in. 14 square feet of "show-window" space for displaying perishables under refrigeration.



Floralaire provides a continuous 24 hour display of cut flowers . . . slows down costly fading and wilting. It also has a large capacity storage space.



Retarde designed specifically for bakers for retarding dough and storage of perishable ingredients. Holds dough up to 72 hours. It has many other applications in other places.

*Condensing units for every application.

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BLOOPIE, OLD CHAP--THIS IS EXTREMELY EMBARRASSING! I'M TERRIBLY SORRY! HILDA! HOW COULD YOU DO IT? CONSIDER YOURSELF DISCHARGED AS OF THIS INSTANT!!
5-31
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BUT TODAY HE WANGLED A DEAL THAT NOT ONLY DONE BLOOPER OUT OF HIS SHIRT--BUT ALSO HIS UNDERWEAR
WE DID IT, BOSS! WE'VE GOT CONTROL OF BLOOPER'S STOCK IN FLATWHEEL TRACTION! WHAT DO WE DO NOW?
HOORAY! LOWER THE BOOM! DRIVE THE STOCK DOWN! FREEZE HIM OUT! GIVE HIM THE WORKS!
JIMMY HATLO
AND A TIP OF THE HATLO HAT TO E.S. FEATHERSTONE, 375 S. FRANCES ST., SUNNYVALE, CALIF.

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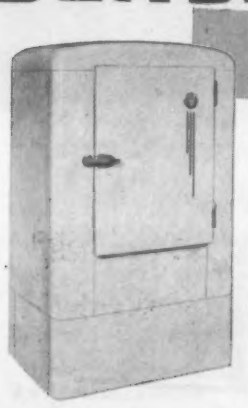

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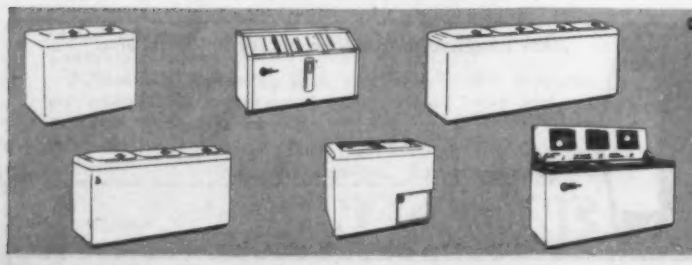

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AIR CONDITIONING AND REFRIGERATION News

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Without Adequate Statistics We All Work In the Dark

(Repeated by request)

LACKING authoritative, *complete* production figures and sales statistics for current years and quarter-years, all the sales managers who operate in our industry are working "in the dark." They must depend upon hunches, upon unreliable barroom revelations, and upon sneaking suspicions to predicate their estimates of the business-they're-getting as compared to the business-to-be-had.

The sales managers' plight is sad enough. He doesn't know how he's doing *this year*. But consider the case of the poor market planner, who deals in futures. The latter doesn't know how many units of this-or-that item were sold last year or in previous years; and yet he is ordered to figure out the market potential for air conditioners of all sizes, water coolers, home freezers, walk-in refrigerators, milk coolers, reach-in boxes, display cases, medical serum protectors, machine-tool cold-holders, etc. for *future* years.

When he looks over the vast array of commercial refrigeration and air conditioning applications—which are so multifarious, complex, and interwoven that they'd puzzle a designer of oriental rugs—he gives up the ghost before he even starts to try to attempt to assay to begin to understand the fundamentals of his problem.

And if the multiplicity of applications in this field of engineering endeavor isn't sufficiently bewildering to drive him crazy, you can bank upon it that he'll lose his mind altogether when he is told at least five separate organizations collect figures *for the sole inspection and introspection of their own members* in the commercial refrigeration and air conditioning business.

Some firms belong to two or more of these competing associations. These hydra-headed firms report their sales statistics to each group to which they belong. This makes for complicated overlapping and duplication. So it happens that the neutral "catalytic agent" who tries to amalgamate and "weigh" all these combined figures is in a helluva spot. He'll do better at figuring the odds on a four-horse parlay.

Here's our suggestion as to one way out of this impossibly entangled situation:

Let's start all over.

Let bygone prejudices about who's big and who's small, about who ought to get the business and who is getting it, be abandoned in the interest of industry integrity. Let's forget—in this one instance—that we have competitors, both present and potential. Let's remember that our industry is fated by the Gods to become a Big Industry—and that there will be more than plenty for all of us—if we go after our sales potential intelligently. Let's all get together to promote our own selfish aspirations in a Big Way.

By submitting monthly, quarterly, and annual production and sales figures to one disinterested accountant—who will amalgamate these figures into immensely-useful-to-all-of-us totals—every producer in the industry can come a lot closer to his goal of trying to find out "where are we, and where are we going."

And then we'll all be able to persuade our Boards of Directors that the commercial refrigeration and air conditioning industry holds forth a promise of future large dividends, and that current investments in research and sales promotion will pay off eventually.

Inferiority-complexed reluctance on the part of any manufacturer to contribute information to such a "pool" of needed industry statistics may keep the reluctant virgin (air conditioning and commercial refrigeration) in the "small potatoes" class. That's for sure.

It's time we all grew up. If we're ever going to make air conditioning and commercial refrigeration the mighty industry it deserves to be—and will become, if we'll let it—we'll have to work together for the good of the entire industry.

What are we waiting for? Why not get together *now?*

Wholesaler Services Dealers with Near-Complete Inventory Of Parts by Covering His Territory In Special Panel Truck

CLEVELAND — Delivery service on equipment and supplies to its dealers by means of a specially equipped truck is a new service inaugurated by Refrigeration Sales Corp. here, reports Warren W. Farr, president of the firm.

Regular trips are scheduled throughout the dealer territory by the company's wholesale salesmen, using in place of a passenger automobile, a 1½-ton panel truck fitted out with special bins and shelving to accomodate as complete an inventory of supplies as possible.

While the products carried are almost too numerous to list, a representative stocking of the truck will include a complete line of sweat and flare fittings, controls, valves, belts, tubing, tools and accessories, refrigerants, oil, welding equipment, ¼-hp. through ¾-hp. condensing units, as well as ¼-hp. to 1-hp. electric motors.

Note hooks on left side of truck for motor belts. Special bins at right hold small parts.

The truck used for this operation has a standard panel body equipped with belt hooks on one side and divided shelves on the opposite side. Also, divided compartments are provided across the top of the body tying into vertical shelves and steel cabinets facing the driver's compartment.

All fittings and small items are dispensed from the front door on the curb side from steel drawers that are sub-divided and measure 4 x 6 x 15 in. deep.

The area from the center of the truck forward is used for stocking crated items.

A similar service operated by Refrigeration Sales Corp. in one wholesale territory for a few months last year received so much favorable comment that it was decided to place the entire wholesale operation on a similar basis, Farr states.

Advantages to the dealers, as reported to the company, are savings in freight, parcel post, and express charges, plus the opportunity to select personally the type of material they prefer.

"From the distributor's standpoint," Farr says, "the investment in a passenger car versus the investment in a panel truck reveals very little difference. Either a truck or a car is valued in the neighborhood of $2,000.

"The truck is slightly more expensive from the standpoint of operating cost. However, it provides the parts distributor with many on-the-spot sales which would not be available to him if he did not have merchandise on hand to deliver. Furthermore, better sales techniques can be employed when merchandise is available for demonstration," Farr concluded.

Ed Kellie Elected Head Of Rema Valve Section

WASHINGTON, D. C. — Edward Kellie, president of Aminco Refrigeration Products Co., Detroit, was elected chairman of the Flow Control Valve Section of the Refrigeration Equipment Manufacturers Association at the last meeting of this product section.

The group discussed at length the questions of establishing industry statistics and the matter of standards on flow control valves.

Kellie said "Our discussions were based primarily upon the advancement of the industry on a cooperative basis with a definite effort on the part of all members of the Flow Control Valve Section to work towards a reasonable standardization with just as little disruption as possible."

Growth of Carrier Corp. Assets Cited by Wampler

SYRACUSE, N. Y.—Growth of the Carrier Corp. was outlined by Cloud Wampler, president, at a recent meeting of the Rotary Club in Hotel Onondaga here. Employment in the Syracuse plant, he said, has risen from 2,000 in 1937 to 4,000 now, and the payroll has increased from $3,000,000 to $10,500,000.

In 1941 the total working capital, fixed assets and proprietary capital was $18,000,000. Working capital has increased fourfold, fixed assets sixfold, and proprietary capital increased fivefold.

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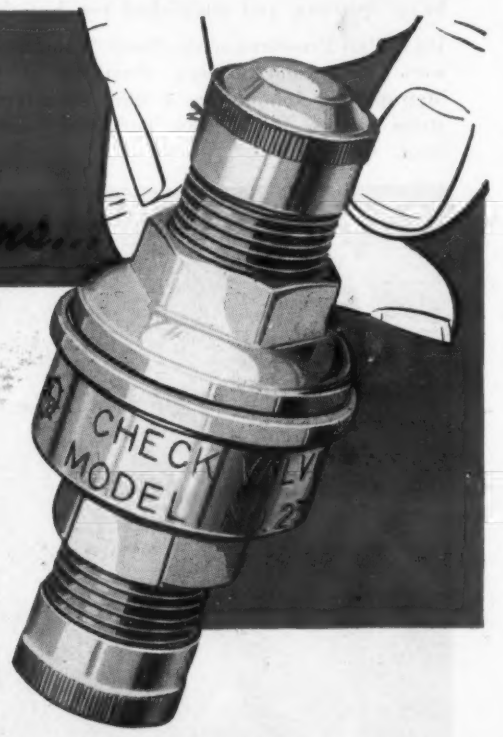

A-P MODEL 234 REFRIGERANT CHECK VALVE

• The new A-P Model 234 Refrigerant Check Valve is an effective companion to the popular A-P Model 235-S Suction Pressure Valve — where two or more evaporators must operate at differing temperatures with one condensing unit. The new Check Valve is installed in the outlet line of the lower-temperature evaporator to prevent the back flow of gas from high to low temperature evaporator during the off cycle.

Several new design and construction features make the new A-P Model 234 particularly valuable for service engineers. It can be installed in any position in the line. Self-aligning stainless steel valve discs are individually ground and lap-fitted to the seat for a perfect and positive closure. With its precision built forged brass body, accurately machined bronze seat and minimum number of internal parts, it assures a long life of trouble-free service. May be used for Freon, Methyl or Sulphur. Ask your Wholesaler about the new A-P Model 234 Refrigerant Check Valve, or write for bulletin No. M-200, or new condensed catalog.

INDISPENSABLE . . . FOR MULTIPLE SYSTEMS
A-P DEPENDABLE Model 235-S
SUCTION PRESSURE REGULATING VALVE

A-P Model 235-S is well-known for its ability to provide faster, closer, more accurate control of evaporator pressures on multiple systems. Maintains constant pressure regardless of load change. Can be adjusted to system immediately, with adjusting knob and graduated visible scale on collar. No waiting for system to settle down. Capacity, up to ½-ton Freon, ¾-ton Methyl or Sulphur. Pressure adjustment from 0" vacuum to 40 lbs. At your wholesaler — or write for bulletin M-110, or new condensed catalog.

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A MOVE W

TED YECIES, Partner, in charge of Sales Promotion, started in the Hardware Business 12 years ago, assisting his Father in the operation of a neighborhood store. Within 3 years he had successfully converted this small business into what is now one of the largest Mill Supply Houses in the area. He is still a principal in this business.

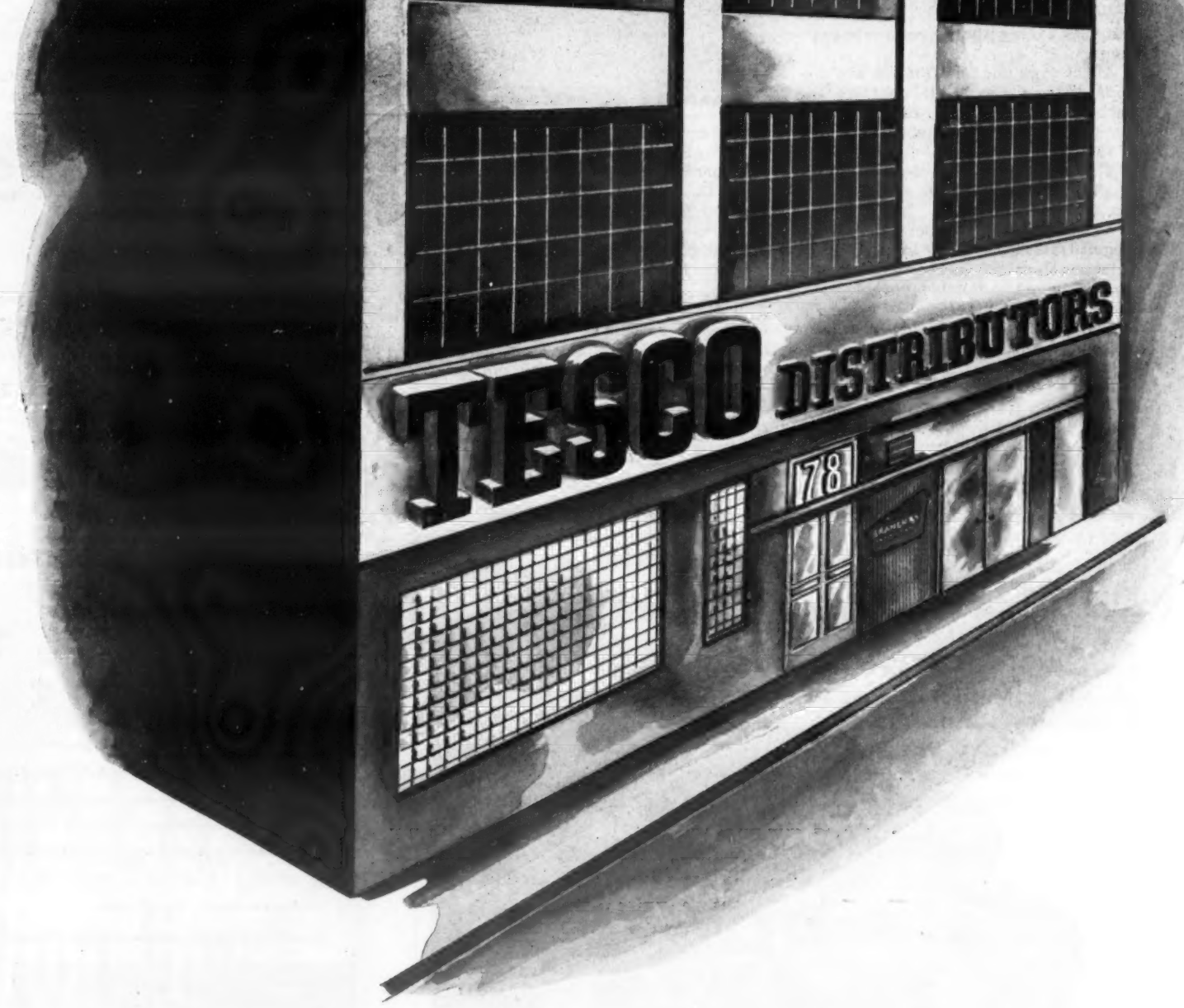
In 1945 Ted & Sid Yecies purchased the T. W. Binder Co., changed the name to Tesco Distributors, and within four years have moved to larger quarters, and established two branches.

He is Past President of the North Jersey Hardware Ass'n, and is now President of the Metropolitan Jobbers Ass'n which covers the states of New Jersey, New York and Connecticut.

SID YECIES, in Charge of Credits & Collections, also a principal of Louis D. Yecies & Sons, Newark, N. J., worked hand in hand with his brother, throughout the growth of both organizations. He was instrumental in forming a cooperative buying group for the smaller hardware dealer, and is still actively engaged in this group, after twelve years as chairman which title he still holds.

We believe this is the oldest and most successful hardware cooperative in the country.

Through his efforts the credit system used by both companies has been most efficiently operated, and is one of the reasons for rapid strides in forging ahead.



JAY LEVINS, in Charge of Sales is widely known throughout the industry.

He was the first Chairman and First Director of the Northern New Jersey Section of A.S.R.E. He is an active member of the National Federation of Sales Executives, and Sales Executives Club of N. J.

For the past 18 years he has been actively engaged in the Wholesale jobbing business of Refrigeration parts and equipment, 13 years with this company.

SID ZACKIN, General Manager, in charge of Purchasing; studied purchasing and inventory control at Columbia University; was in charge of inventory control and assistant to purchasing agent at Claremould Plastics, Newark, N. J. It was primarily due to his ability, that we were able to keep our customers properly supplied throughout the last few critical years.

WE'RE PROUD OF!

FORWARD AGAIN!!! *1946 Paterson, N. J., branch opened!... 1947 Union City, N. J., branch opened!... 1948* Building purchased for Main office and warehouse. 1949 Opening of Larger quarters. On March 1st, 1949 we officially open our $100,000 office and warehouse, containing 20,000 square feet. Designed in the most modern manner, our building will be a distinctive landmark in the heart of Newark, with unlimited parking facilities.

Air conditioned Sales Rooms with the last word in lighting, enhancing the smartly displayed merchandise. Modern offices equipped with the latest types of efficient business machines, for quicker and correct operation. Elevator service to all floors, where one of the largest jobber-distributor stocks in the country is housed. Display rooms are available to our dealers, where they can demonstrate various equipment to their customers, in an atmosphere that is conducive to good business. Receiving and shipping platforms are completely enclosed, making this operation ready for all weather conditions.

Air conditioned meeting rooms will be available to all refrigeration groups, with our compliments. This building will see an unprecedented expansion, with more and more lines of new and better merchandise, many of which have already been added.

Ted Yecies has planned something new in "Public Relations" and "Sales Promotion," that he will inaugurate at considerable expense, to better serve the dealers.

REFRIGERATION EQUIPMENT WHOLESALERS ASSOCIATION REWA MEMBER

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Best Wishes
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Congratulations to our aggressive Executive Heads,
TED AND SID YECIES

Congratulations
ABRAM YECIES & CO.
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Best Wishes
HERMAN W. YECIES
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BRUNNER MFG. CO., Utica, N. Y.
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DETROIT LUBRICATOR CO., Detroit, Mich.
DOLE REFRIGERATING CO., Chicago, Ill.
ECLIPSE PIONEER CO., Bendix, N. J.
ELECTRIMATIC DIVISION, Chicago, Ill.
FREEZ-KING CORP., Chicago, Ill.
HALSTEAD & MITCHELL, Pittsburgh, Pa.
HEAT-X-CHANGER CO., Brewster, N. Y.
HENRY VALVE CO., Melrose Park, Ill.
HIGHSIDE CHEMICAL CO., Newark, N. J.
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KINETIC CHEMICALS CO., Carney's Point, N. J.
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SPORLAN VALVE CO., St. Louis, Mo.
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What Are Some Typical Problems and Questions Puzzling Present-Day Refrigeration Servicemen?

"What's a typical problem of the present-day refrigeration serviceman—what particular question did he have about your product?"

At the Southern Refrigeration and Air Conditioning Educational Conference and Exhibit, Associate Editor Dale Mericle attempted to get an answer to the above, and while not succeeding in all cases, he got enough information to present a representative picture of some of the matters that are problems to the service field today.

How Does Control Work On Instantaneous Cooler?

Most of the questions asked here concerned carbonators and instantaneous coolers, especially the latter. Servicemen want to know what makes it tick, especially the refrigerant control.

The answer, Temprite explains, is that a constant back-pressure limiting valve is present with a spring. When incoming beverage hits the coils which are immersed in refrigerant, the refrigerant boils. When the pressure gets high enough, the back-pressure valve opens, gas goes to the condensing unit, and the machine starts.

As the pump pulls the gas pressure down, the valve closes at a predetermined point (above the freezing temperature of the liquid being cooled), and the machine stops.

A wide variety of questions chiefly centered on "what goes into the product" were brought out at the Alco exhibit. There has been no single outstanding question, except "how does it work?"

What's Defrosting Time On an Electric Defrost?

Everyone here wants to know how long it takes Bush's DF electric defrost unit cooler to defrost.

Twenty minutes is the answer, under normal, average conditions. Naturally, Bush points out, it is slower than water defrost, but Bush emphasizes that no piping is needed except for a drain line, which can be smaller in size.

Electric defrost, Bush tells the servicemen, is also easier to tie in with an electric timer clock for automatic defrosting.

Is There a Way to 'Quiet' Capillary Tubing?

Questions here mostly concerned the best way of applying and using capillary tubes, particularly how to eliminate any noise through a capillary.

The answer to the noise problem, according to Wabash, is to eliminate any liquid trap ahead of the capillary tube. For this Wabash recommends its Poronze strainer which has the inlet in the center and the outlet offset at the bottom. This, it is claimed, prevents liquid refrigerant collecting in the bottom of the strainer and then boiling off gas which could enter the capillary.

Wabash is also coming out with a small drier for capillary tube systems with this offset arrangement.

Seamless spun refrigerant service cylinders are now being added to the Wabash line, servicemen were informed.

"So this is your package unit" was the most frequent comment heard in the Kold-Hold booth, where the company's self-contained truck refrigeration unit employing hold-over plates was in operation.

Many servicemen, however, were apparently not aware of the hold-over method of refrigeration employing eutectic plates and were reportedly astonished that refrigeration can be "held-over" for as long as 12 hours.

Questions regarding manufacturing processes, especially, "how do you obtain the bond between fin and tubes" were predominate in the McQuay booth probably because there isn't much to servicing a finned coil. Application problems also came up occasionally.

As for the question of bonding fins to tubes, the answer given by this manufacturer is—"by hydraulic expansion of the tube into the wide fin collars."

The "mine run" of questions asked at the Servel exhibit was more or less of a curious nature with considerable interest being shown in the construction of the motor-compressor units.

Greatest interest, possibly, was in the electrical side, probably because "that's the thing they can do something about in the field."

There's still a "tremendous educational job to do in the industry on both sealed and open units," it was stated.

What Is Correct Way To Adjust a Control?

"How do you make adjustments on controls?" was the question that came up most frequently with regard to Ranco products.

"Merely take a screwdriver and turn the adjusting screw" was the simple answer.

Ranco, however, now supplies instruction sheets and charts with each replacement control which show how to make this adjustment and how far to turn the screw. These instruction sheets were pretty much the direct result of this question having been asked so often at the regional meetings in the past few months, it was stated.

"What is the 'Catch-All' drier made of and how does it work?"

To these frequent questions Sporlan explains that it's made of activated alumina in a new form, that is, the drying agent has been molded into a porous core which, says the company, retains the drying qualities and also makes the device a good filter.

How Will Field Handle Tecumseh Sealed Unit?

Servicemen want to know of Tecumseh how they're going to handle servicing of the company's sealed units in the field.

The problem should be diagnosed, and if there's anything externally wrong, repair it, but if the trouble is internal, the unit should be returned to the factory, was the way this question was handled.

Here again, the major interest of servicemen was concerned with learning what's inside valves, etc., and how the product is made. Cutaway models helped greatly in explaining the details of construction.

How Is Condensate from Window Cooler Disposed?

"What do you people do with the condensate from your window air conditioners?" This question came up frequently, Mitchell reports.

Positive disposal through a fan slinger ring was Mitchell's answer, and elaborating slightly on this, Mitchell points out there is also the problem of leveling up the unit so that the condensate does not tend to collect in the indoor section of the conditioner.

Many buildings and windows are not 100% level, so Mitchell incorporates a ⅜ in. slope toward the back (outdoor end) of the unit, which, it contends, greatly helps to overcome this problem.

"How does it operate and how is it constructed? What type of a condensing unit is used?"

These questions, asked of many exhibitors, were the ones that servicemen brought to the Ebco representatives.

"What kind of a unit do you use?" servicemen asked in the Coolstream both showing various models of water coolers.

Universal Cooler hermetics was the answer.

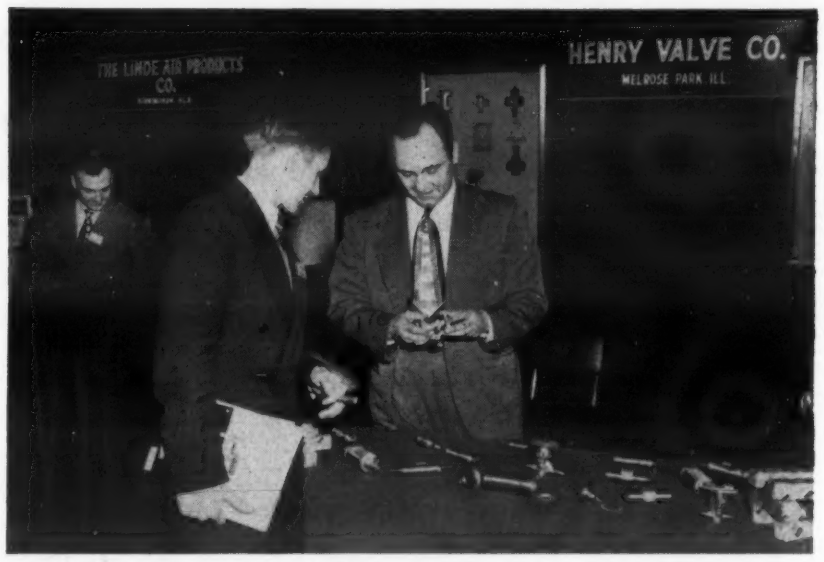
"How can I service it?"

The water coolers, explains Coolstream, employ an expansion valve and conventional flare fittings so the servicemen can tackle the job just about the way they do a conventional open job. The hermetic unit can be taken out easily for repair or replacement, the company asserts.

Accessibility of the various components was also reported of considerable interest to the booth visitors.

The South Is Host to an Educational Conference

Wholesaler Jack Berry (left), who heads the F. H. Langsenkamp operations in Louisville, Ky.; Ed Thiele of Kold-Hold; Mrs. Berry; and Art Bernthal of Bundy Tubing renew acquaintanceships at the Birmingham meeting.



Another typical booth scene is shown in the Henry Valve Co. display where Gordon W. Wheeler (right), Henry's sales promotion manager, shows a packless valve to Bryce Morris, serviceman from Talladega, Ala.

Larkin Coil's new water-cooling tower gets the once-over from William F. Applegarth, vice president of Industrial Trades Institute, under the guidance of James Palmer (left).

Typical of the interest shown by servicemen in the various exhibits in this birdseye view of servicemen crowded around the Wagner Electric booth as Bryant L. Britt (back to camera) of Wagner demonstrates motor operation at overloaded or low line voltage.

YOU GET PLUS VALUES* in the PENN "270"

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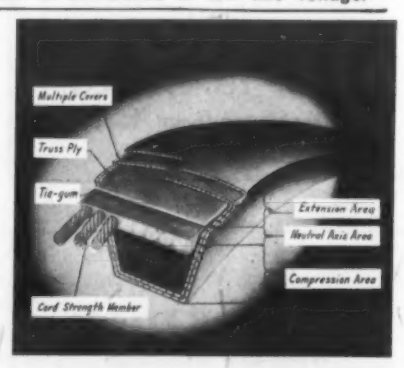


MANHATTAN RUBBER DIVISION—PASSAIC, NEW JERSEY

RAYBESTOS-MANHATTAN, INC.

Big Birmingham Turnout Included the Mayor

For once the mayor of the city actually appeared to welcome the convention as Mayor Cooper Green of Birmingham is doing here. Left to right are K. B. Thorndike, of the Rema educational committee; Charles Harris, International RSES president; H. F. Hildreth, Rema president; John Manley, president of Alabama State RSES association; Mayor Green; R. H. Luscombe; and C. S. Tucker, international RSES director. Hidden behind the mayor was John Spence, who was in charge of Rema's educational briefs program.

* * *

Some Things That Servicemen Want Answers On--

Why Do Drier Problems Come with Hot Weather?

"Why does a drier work well in winter and then in the first few hot days of spring or summer do we start having moisture trouble, such as freeze-ups at the expansion valve?"

The answer to that frequently asked question at the Remco booth is that with silica gel and other physical type drying agents, their adsorbent power is directly related to temperature. The warmer the temperature, the less moisture they can hold, it was explained.

Putting the drier in a cold location such as the suction line where the low temperature will permit the drying agent to retain the moisture solves the problem, Remco tells the servicemen.

Principles of construction employed in its shaft seals were the chief concern of servicemen visiting the Chicago Seal booth where an operating cut-away model of a seal attracted much interest.

Particular emphasis was placed on explaining how the company's neoprene gasket feature makes the seal self-aligning and avoids the necessity of refacing the crankshaft seal, the company said.

Displaying a sealed commercial-type condensing unit operating in a transparent plastic shell, Kelvinator Div. of Nash-Kelvinator Corp. was answering the servicemen who were worried about "will the sealed unit put us out of business" with the statement that "there's lot of service work to be performed on a refrigeration system besides repairing the hermetic unit."

Correct Course of Water In Counter-Flow Condensers

"Does the water run on the inside or the outside of the inner tubes?" This was a frequent query at the Standard Refrigeration booth where a cut-away section of the company's counter-flow condenser which can carry as many as nine inner tubes was on display.

"Run the water through the inside tubes because this is the way you not only get the benefit of the cooling water on the inside but also some benefit from air passing over the outside tube containing the refrigerant," answered Standard representatives.

Effect of Thawzone on Various Materials

"Will Thawzone affect a silica gel drier?" "How does it get along with sulphur dioxide?" and "Will it effect hermetic windings?"

The answers to these common questions asked of Highside Chemicals Co. are as follows the company says:

1. If properly used, that is, if Thawzone is permitted to be diluted by the refrigerant, it won't affect the drying agent.
2. The label on the bottle specifically states not to use it with SO_2.
3. As for hermetics, proper dilution is required. Generally use about $\frac{1}{300}$th of the amount of refrigerant in the system. Highside says it's heard of no bad results when used with hermetics in greater strength than that, but it "certainly doesn't advise it."

Wondering about the repair of sealed units, servicemen here usually inquired of the Wagner Tool representatives—"what is the most common trouble with hermetics?"

Burned out and stuck-up jobs was the answer with the notation that these complaints represent about the same problems involved with conventional open-type machines. Of course, the manner in which these two types of units are repaired does differ, Wagner points out.

"Do you have such-and-such gasket?" was often asked of Jarrow Products, but there was also considerable interest shown in the display which describes how to cut and fit gaskets. Servicemen suggested that this information be made available in pamphlet form. This will be done, Jarrow officials explained.

Servicemen's attention was also attracted to Jarrow's new "Speed-Angle" charging hose, which features a quick-coupler connection at right angles to the hose to avoid sharp bends and thus increase the life of the product, the company explains.

Questions at the booth of Williams Refrigeration, Inc., of Greenville, S. C., centered around the company's recently introduced cooler door which contains a built-in equalizer bar claimed to minimize the possibility of warping or to permit adjusting the door to compensate for warping.

A cut-away model showed how the equalizer is anchored within the door and fitted with an adjusting screw head for convexing or concaving the door as required.

Method of Flaring Bundy Tubing

"How do we flare your tubing?" servicemen asked the Bundy representatives.

A special flaring tool providing a double-flare was the answer to that one.

Featuring a demonstration showing refrigerant cylinders are tested, Virginia Smelting's idea was to make servicemen more safety-conscious. Service cylinders may get banged around and through years of use become crystallized. Overfilling them will distend the cylinder, sometimes permanently.

So, suggests the company, if servicemen have any old cylinders around, they ought to have them put through a hydrostatic test.

Product information such as "what is the balancing channel in packless valves" was sought in the Henry Valve Co. booth, which also features its new "Blue Bantam" balanced-action diaphragm packless line shut-off valves plus small capacity soldered type driers for fractional horsepower applications.

The driers will have 1½ in. tube extensions in ¼ and $\frac{3}{16}$ in. sizes. The new "companion line" of valves has the regular features of Henry's line except that the diaphragms cannot be inspected or replaced while the valve is under pressure.

What Is Application of Latent Heat Storage Unit?

Curiosity over Dole's scale model "Latent Heat Storage Unit" brought servicemen into the Dole booth to inquire how it operates and what it's used for.

The company explained that this unit employs plate evaporators in a water bath operating off a small condensing unit, so that over a period of time ice can be built up on the plates in advance of the need for refrigeration. Circulation of water over the ice banks on the plates will supply refrigeration well above the normal rated capacity of the condensing unit, Dole points out.

Such applications as air conditiona church where the loads are infrequent, or cooling of milk cans, are ideal for this system, according to Dole.

How Do Ultra-Violet Lamps Fit Into Refrigeration?

"Why are you showing ultra-violet lamps at a refrigeration show?" asked servicemen at the booth of Ultra-Violet Products, Inc.

Ultra-violet lamps, the company explains, can kill bacteria, molds, and slimes that can develop on meat in walk-in coolers and so serves as an adjunct to refrigeration.

Because the lamps help kill bacteria, temperatures in the cooler can be higher to speed the ageing of meat, the company says.

This company's lamp also features an electric heating element designed to keep the air immediately surrounding the lamps at the right temperature for efficient operation. Too low an ambient temperature may drop the amount of ultra-violet rays emitted.

"Are you making belts any better now than you were during the war?"

The answer to this one, asked occasionally of L. H. Gilmer Co., was "Yes." During the war, the company explained, it was impossible to obtain the proper materials and synthetics were used. Now only crude rubber is employed.

No questions of a technical nature were reported at the Federal booth where a model of the company's 60-10 "Giant Top" display with one end removed to show construction features was on display. Most visitors at this exhibit, however, did express confidence in having good sales prospects for commercial refrigeration during the year, the company reported.

What Is Proper Method Of Cleaning Condensers?

"How easily can your condensers be cleaned?" Acme Industries was asked.

The answer was to simply remove both ends of the condensers and run a brush on a drill through the "straight-through" tubes in the condenser, the company explained.

"How fast does this compressor run?" was the concern of visitors who watched a cut-away of a 5-hp. machine being shown in the Lynch Corp. booth.

The speed recommended was 250 to 600 r.p.m. for this heavy-duty low-speed machine.

Servicemen were also interested in features of the compressor valve plate.

"What's that?" said servicemen when they saw Electrimatic's cut-away of its large WJ water-regulating valve.

In explaining the operation of this valve, Electrimatic emphasized the pilot feature which helps in the valve's operation.

Interest at the Linde Air Products display was largely centered around the new small size oxy-acetylene welding outfit employing 80-cu. ft. capacity oxygen cylinders and 60-cu. ft. acetylene cylinders. This outfit is claimed to produce three times as much heat as Linde's Prest-O-Lite torch.

Also featured was the Prest-O-Lite pilot control valve which can be installed on any torch of that make which permits a small pilot light to burn after the torch has once been adjusted. This is said to save gas while setting up the work piece and to save time in lighting the torch.

Questions on sales policies, distribution, etc. were most frequent at the booth of Typhoon where a sound movie showed how the units were constructed.

As far as the product was concerned, if servicemen were familiar with it, they inquired about the component parts. If they hadn't seen this air conditioner before, they wanted to know just what went into it.

How it's made and the type of stores that it can be best sold to

Wins Recognition for Efforts on Behalf of Industry

No one received more applause upon being introduced at the big banquet Saturday evening than Mrs. Robert (Mary) Gennett, wife of the general chairman of the Birmingham conference, who is generally known in these parts as the "mother of the Birmingham RSES." Left to right are R. H. Israel of Virginia Smelting; John Manley; Mrs. Gennett; Duke Hildreth; Floyd Corbin, publicity director for the conference; George Tribble, the toastmaster; and Charlie Harris.

were the sort of questions asked about the "Sterling Junior" triple-duty display case that Minneapolis Show Case was promoting in its booth by means of literature and pictures.

This product is aimed at the small neighborhood store rather than the supermarket, it was pointed out.

"How are hermetics built? How do they operate? What about this new complete household replacement system having both the high-side and the low-side?"

These were the type of questions predominate in the Universal Cooler booth.

The old idea that servicemen were not interested in hermetics has definitely gone by the boards, declared the Universal Cooler representatives.

How Does Heat Exchanger Boost System's Efficiency?

"Where should we locate the drier and what position should it be in? How much does a heat exchanger increase the effciency of the system?"

Mueller Brass suggests that the drier be installed between the heat exchanger and the expansion valve and be placed in a vertical position with the liquid entering the bottom and going out the top.

As for the heat exchanger, Mueller suggests an increase in efficiency of between 6 and 8% as a "safe bet."

Some More Questions by Service Engineers

Construction and Operation Of a Combination Condenser

"How do you get the aluminum around the tubes?"

In answering this question concerning their liquid coolers, Heat-X-Changer officials explained that the copper coils are placed in molds and the aluminum poured around them. Close control over the temperature of the molten aluminum to avoid burning up the copper is important in this operation.

Making its bow at this conference was a new product for this company—a combination air and water-cooled condenser with cleanable water tubes. The condenser is designed to permit operation as an air-cooled device until the air temperature rises above 70° F. When this occurs that water valve opens, admitting water to the condenser tubes. Longitudinal fins between the water tube and the outer tube through which the refrigerant flows are said to provide extra surface and increased heat transfer.

What Is Theory Behind Air-and-Water Condenser?

"What is the theory of the combined water and air-cooled condenser featured in the cut-away operating model of your condensing unit?"

The obvious advantage, explains Lehigh Mfg. Co., is that such a condenser has all the capacity and advantage of water cooling plus the economy of an air-cooled unit. The unit shown (a ½-hp. machine) could use as much as 60 gal. per hour as a water-cooled unit, but in normal operation 90% of this water could be saved, the company tells servicemen.

Most of the questions at Larkin's booth were about the two new products on display—an indoor cooling tower and a circular-type "Humi-Temp" turret cooler.

Important design features on the cooling tower, made in sizes from 5 to 50 tons, include the use of bronze wire screens over and through which the water is sprayed. The operating model on display was fitted with transparent panels so the water action could be seen. Another feature stressed was that all framework, pans, etc. is sprayed with hot zinc to prevent deterioration caused by the high salt content of water in the Gulf coast states, the company explains.

The new turret cooler features double staggered finned tube and a specially designed lip on the drain pan to provide a Venturi effect so that the outgoing cold air cannot short cycle directly back into the unit, it is claimed. Top and bottom sections of the unit are also sprayed with insulation.

Proper Location of a Silica Gel Drier

"What is the proper location of a drier?"

Asked frequently of drier manufacturers, this question also came up often at the booth of Davison Chemical Corp., the manufacturer of silica gel.

"Install the drier in the coolest part of the liquid line, wherever that may be; at least, that's our company's opinion," answered a Davison representative.

"What do you have that's new?" inquired servicemen at the Penn Electric Switch exhibit, but, in addition, there were occasional specific questions about certain details of Penn's various products, some of the questions arising from the operating display board, explaining the function of some of its items.

Condenser To Be Added To an Existing System

Halstead & Mitchell aroused servicemen's interest and questions with a brand-new item. Shown for the first time was a modified version of the company's standard double-tube, counter-flow, cleanable, water-cooled condenser which is designed for addition to existing systems already equipped with an air-cooled condenser.

Water tubes employed in the new design (which is not intended to replace the company's regular models) have extended surface, while the outer tubes are larger.

The company figures that when added to existing systems, the water-cooled condenser will have to be cut in only when the ambient air temperature is in excess of 90° F.

Numerous questions concerned the replacement of units in old household refrigerators with new machines has indicated to Copeland Refrigeration Corp., a company spokesman said, that this replacement market must be given much thought.

The problems along this line involve such matters as having the replacement unit of the right size so that it can be readily adapted to the machine compartment of the old boxes.

"What's new? What about parts for hermetic units? Where should we install the drier? Where's that stuff you've been advertising?

These were typical questions at the Imperial Brass Mfg. Co. booth, and on the drier problem, Imperial was suggesting installation on the high side of the system.

Two Main Moves In Fixing Hermetic Units

"How do you fix hermetic units?"

The answer to that question—the most frequent one at the Airserco Mfg. Co. booth—was to first detect the difficulties with an instrument and then replace the defective part with a new one.

"If you have a bad relay, replace it; if the compressor is stuck, why unstick it with the equipment that is available," the servicemen were advised.

Are Screws Obtainable For Replacement Hinges?

"Where do we get the screws to put on replacement hinges and latches for commercial refrigeration equipment?"

This frequently posed question has prompted Grand Rapids Brass Co. in recent weeks to readjust its sights completely on the merchandising of cabinet hardware in the commercial field, company representatives revealed.

Now the company is packaging complete kits of hinges, latches, screws, and whatever else may be necessary for the serviceman to install this hardware, sales of which can be a very profitable item for the serviceman, the company contends.

A much more active merchandising and sales educational program for servicemen in this regard is in the offing, it was indicated.

What Can Be Done for Low Voltage, High Loads?

Attracting much attention, Wagner Electric Corp. had a demonstration of motor field tests to show how low line voltage or high refrigeration loads will put an extra hardship on the motor, and what should be done about these conditions.

Cutting the refrigeration load, installing a larger motor, placing a smaller pulley on the motor shaft, and checking the voltage at the motor terminals, were (in briefest form) the answers suggested by Wagner for these problems.

A new tool which is claimed to remove quickly a worn motor bearing and replace it with a precision-bored thin-wall bearing in a single operation was also featured by Wagner.

Probably because the Frigidaire Meter-Miser unit has been introduced in the larger commercial-sized models, there were numerous questions concerning the basic design and operation of this rotary-type compressor.

Availability of repair parts was of considerable concern to numerous servicemen, while most all visitors to this booth wanted parts catalogs and service manuals.

How Should Your Unit Be Taken Apart?

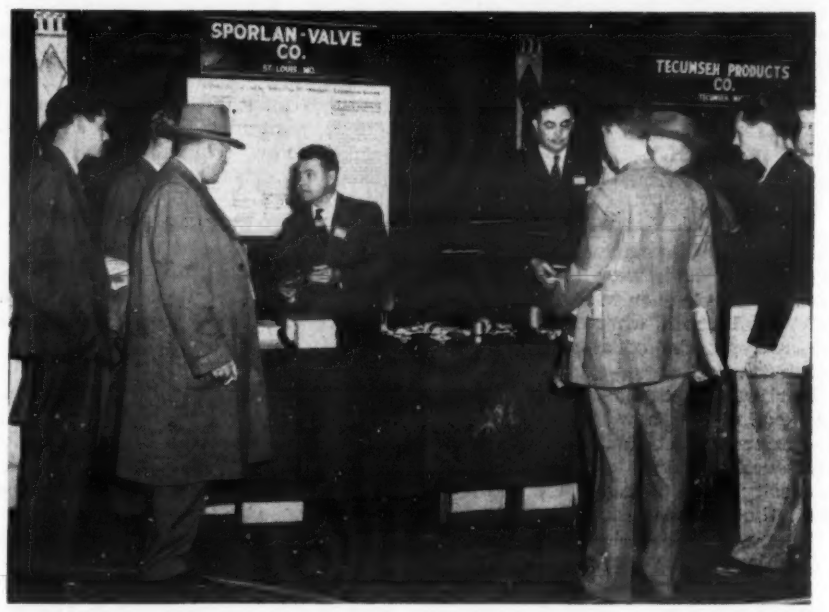
"How should your compressor be taken apart?" was often asked at the Curtis display where a cut-away unit was shown, the company said, adding that servicemen wanted to know about the internal workings of the machine, particularly the floating ring oiler device.

"Are you back in production on your cog-belt?"

"Yes," answered representatives of Dayton Rubber Co., who also reported that servicemen generally wanted to obtain copies of belt interchangeability lists.

Frigidaire's rotary-type commercial compressor was "taken apart" both blown-up pictures and in actuality to permit the service engineers to study its design.

Educational sessions at the Birmingham conference were heavily attended. Here Paul Reed is discussing the heat pump.



Cutaways of products, large explanatory charts, and service literature were the educational "tools" used in the Sporlan Valve Co. booth.

One of the things that the men in the field have liked about the Educational Conference is that they present an opportunity for discussions with the top men from the manufacturing headquarters, which is what is taking place here at Superior Valve & Fittings Co. booth.

Del Moerick of Automatic Products Co. (pointing to the demonstration device) discusses the characteristics of a particular type of refrigerant flow control valve with the aid of a device especially developed for such occasions, while conference visitors listen and take notes.

Replacement Parts for Spencer Thermostat Items

"Where can we get replacement parts?"

Spencer Thermostat Co. readily admitted that it had been working on this problem for some time but doesn't have the complete answer except to suggest that servicemen go to the original manufacturer using Spencer equipment, who has in almost every instance a supply of replacement parts.

This type of equipment, Spencer explains, has to be closely matched to operating characteristics of the motor and its application, so that apparent minor differences between various models of its parts can be quite important.

The company is experimenting with one distributor on the stocking of replacement parts at the present time, however, it was revealed.

How Do You Clean an Expansion Valve?

"How can you clean an expansion valve if it gets dirt in it?" servicemen asked at the Detroit Lubricator booth.

Detroit suggests that with its valves the dirty valve be filled with a solvent such as white or cleaning gasoline or carbon tetrachloride, the openings closed up with thumb and finger tip, and then shaken well. Afterwards the valve should be blown out with high-pressure refrigerant gas.

This procedure will usually remove both wax and dirt, but there is no assurance that this type of cleaning will be 100% perfect, servicemen are cautioned.

The method is never used by the manufacturer in repairing valves, but it may prove satisfactory in the field. Factory-cleaning procedure involves complete disassembly of valve and putting each separate part through proper cleaning solutions.

What Is Effect of Capacity Control?

Questions about the construction and operation of the capacity control mechanism incorporated in Carrier compressors and the interchangeability of parts were frequent in Carrier Corp.'s booth.

Representatives explained how the capacity control permits the compressor to operate at approximately 25%, 50%, 75%, or 100% of capacity, depending on the model and requirements, and also pointed out that pistons, rods, seals, suction and discharge valves are interchangeable on the 5, 7½, 10, and 15-hp. compressors, and likewise in the 25, 40, and 50-hp. series.

Can Added Coil Relieve Condenser Overload?

Servicemen here wanted to know if a short length of Wolverine Tube's Trufin coil can be used in conventional installations between the compressor and condenser where the condenser is obviously overloaded in order to increase efficiency.

The answer to this question, it was indicated, will require some study because Wolverine has been concentrating on distribution of this tubing through manufacturers of original equipment.

How to Master Control On Storage Bank System

Specific questions such as "how, on a church air conditioning job using a water-ice bank system can we start up the unit with warm water in the tank and pull it down to normal operating temperature without using a hand throttling valve" were among those asked of Aminco Refrigeration Products Co.

This company's new large capacity starting load regulator would take care of this problem automatically, it was claimed.

Mass Reconditioning

Tearing Down 2,600 Used Refrigerators To Meet Army Contract Calls For Thorough Parts Check Up, Multiple Replacements

SAN ANTONIO, Texas. — Before General Manager Bill Bodenhamer and his service staff of 200, 160 of them workmen, are finished with what may be the largest refrigerator reclamation project ever attempted March 7, they will know the inside and out of just about every refrigerator made.

Bodenhamer is pushing through the job Marshall Webb Co. undertook at the former U. S. Arsenal here last October when the Army decided to repair 2,600 used refrigerators it had stashed away in Fort Sam Houston depot. The boxes had accumulated for two years when Webb won the bid to put not only the refrigerators back in service, but also 500 other items of kitchen equipment.

The largest single units are 2,086 65-cu. ft. boxes. Included are 500 dough mixers, meat slicers, meat grinders, and meat saws.

No. 1 job here is getting enough gasket material to put on the refrigerator doors. The repair contract alone calls for $750,000 of the million dollar project. To make sure from 25 to 35 reconditioned, refinished units are completed per day, Bodenhamer and his gang of men have need of the 1,200 feet of new material flown in by plane every day from a single supplier.

Cabinet Chinks Are Headache

Another real headache is in filling the chinks in porcelain cabinet covering. For this wholesale operation a complete sheet metal department has been set up in the plant that has three warehouses and three sheds in which to work. The warehouse rental is $1,000 apiece.

Not more than one refrigerator in 100 comes in from the depot by truck but what has from one to 50 chips or cracks. These are filled with metal putty. Then the boxes are sanded and masked. Wooden boxes are the most troublesome since they must be sanded down to the raw wood. After the sanding, one coat of flat white followed by two coats of enamel is sprayed on. For porcelain cabinets only those parts of the cabinet where putty has been applied, are painted.

Within the 50,000 sq. ft. space utilized for the repair of these refrigerators, a complete production line has been set up. An average of 200 refrigerators a day are worked on.

As soon as a fork lift brings an uncrated box into storage, that box is given a job number. Then a general disassembling job begins. While the box goes to be inspected for shortages, accessories and hardware, the motor is being taken apart and systematically tested.

All Shelves Replated

Shelves are removed from the boxes. If there are any shelves missing, a note is sent to the supply department, which procures the missing equipment. All shelves are retinned before they're returned to the same refrigerator from which they came. Hence, the reason for using job numbers. In this way Marshall Webb Co. can see just how much material in the used boxes can be salvaged and how many must have new parts.

An inspection usually results in wooden frames being replaced with new plywood. Nine tenths of the time both the wooden frames and the bottoms have rotted because of outside storage, wear and tear, poor handling or moisture that has been allowed to seep in. As much as 90 sq. ft. of plywood has been used to fill the wood parts of a single cabinet.

As soon as the condenser comes out of the box, it goes to the cleaning department and is given a bath in strong solvent solution. Here kitchen grease is expelled as well as any grime or rust that may have accumulated. It takes a great deal of scrubbing to get all the grit out.

About half the condensing units are the self-contained type. The other 50% are equipped with remote units. There are five main types—Frigidaire, General Electric, Tecumseh, Curtis, and Copeland.

Condensing Unit Overhauled

Bodenhamer has found that nearly always the condensing unit is in need of a complete overhauling and that new or exchange compressors will have to be made. Piston rings and connecting rods are common ailments and at least a fourth of all the units have leaky valves while the remainder must be refaced.

After the parts are either replaced or overhauled, the condensing unit goes on the test bench. In the course of normal operation the oil is checked, refrigerant charts are used, the controls are set, the head and back pressures are tested and even the belt tension and pulley alignment is looked over for looseness or tightness.

Checking Valve Operation

In the coil department the first work is to disassemble the cooling unit and look for leaks, dirt, and rusted parts. Most important, of course, is that the expansion valve must operate efficiently. About three times in 10 these valves must be replaced. One bright spot in the job has been the fact that very few of the blower coil motor type with its fan need either repair or replacement.

The cabinet department has a part of equal importance with all other jobs in the operation of refinishing the box. All door gaskets, metal and wood stripping, door hardware, broken glass doors, all scratched or nicked porcelain and the strikers, latches, and hinges on the doors, not to mention the little things like nuts, bolts, and screws are replaced or inspected here. Generally, the cabinet gets its tightening here.

Afterward, a test run is made. It takes four hours to complete and the box must be able to hold a constant recording on the charts of between 35 and 40° F.

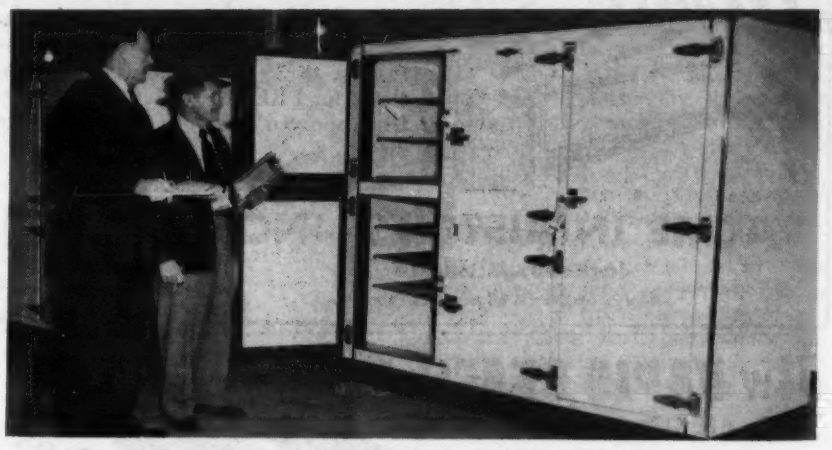
Painting is the final touch before crating, and sanding and masking is the first labor.

Accessories to handle meat are put in the boxes and inspected by John P. Kalafut. If Kalafut finds the refrigerator seals properly, then it is ready to be crated.

Of the million dollars, $50,000 in contracts is handled by Southern Transfer and Storage, who get paid by Marshall Webb Co. First, the refrigerator is carefully wrapped in waterproof paper. The boxes are marked as they come off the line, one every 15 minutes, and then go back where they originally came from, the Fort Sam Houston depot, to await shipment to predetermined destinations.

There are five such destinations—Syracuse, N. Y., Richmond, Va., Atlanta, Ga., Stockton, Calif., and Ogden Utah. The big representatives of refrigerators are represented as well as the numerous smaller ones. Among them are Puffer-Hubbard, Super Cold, Hussmann, Hill, General Electric, Westinghouse, Coolerator, McCray, Weber, Koch, and Tyler.

Million-Dollar Reclamation Project



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Use of Ammonia Recirculating Systems In Freezing Room Outlined by Patterson

BIRMINGHAM, Ala.—"Although ammonia-brine systems are still in wide use, direct expansion systems offer many advantages, and we think that ammonia gravity coils are not outmoded," asserted V. C. Patterson at the Southeastern Regional Training conference held here recently for refrigerated warehousemen and sponsored by the Refrigeration Research Foundation and the Southeastern chapter of the National Association of Refrigerated Warehouses.

Patterson, a former York Corp. engineer, now heads up V. C. Patterson & Associates, Inc., a firm of consulting engineers.

At the conference Patterson gave two talks covering various phases of freezer and cold storage room design and operation as well as equipment maintenance and repairs.

"In the design of freezing and storage plants, safety should be a primary consideration," he emphasized. "If we are to continue using ammonia in freezing, we've got to understand ammonia. With it, leaks are easy to detect, but you must be able to recognize the danger signs in an installation, such as unventilated machinery rooms, vibrating lines, and the lack of ammonia masks. Also, you should not refill ammonia drums, even with the use of scales."

Another serious problem in the design of plants is heaving of floors, he indicated.

"We have recently made six or eight installations which have wrought iron pipes buried in the fill beneath the floor. Through these pipes is circulated fuel oil which has been heated to 55° or 60° F. by a hot water jacket arrangement. This is to prevent freezing of the fill and ground and consequent buckling of the floor."

With frozen food plants becoming more conscious of materials handling problems there is also a trend toward the one-floor plant operation now, he indicated.

As for the type of freezer to install, Patterson said that was a "highly controversial" issue.

"Incidentally, the life of freezer rooms has turned out to be amazingly short. The cycle of freezing, defrosting, and warming up is repeated over and over and has made the life of freezing rooms much shorter than originally anticipated.

Tunnel Freezer Very Necessary

"In frozen food plants the tunnel type freezer is a production item and as such is very necessary. But as the package to be frozen gets larger in size there is less need for using a freezer. Even 30-lb. tins, however, can be frozen faster with a freezer, if speed of freezing is an important consideration."

Selection of the size and type of freezing equipment is closely related to the refrigerating capacity of the system employed by the warehouse, he emphasized.

"Rooms for holding frozen foods at 0° F. in a plant might require a machine capacity of 15 tons, but for freezing, these same rooms would require 75 tons of refrigeration. It would be impractical to coil the rooms for 90 tons—the total of 15 tons for holding and 75 for freezing.

"So for the average cold storage warehouse which is freezing all types of products, I think it best to have a separate room with refrigerating capacity four or five times greater than that needed for holding temperatures, plus an air movement in the room of 300 to 500 f.p.m.

"The older tunnel freezers built 10 years ago with the large coils have given much less trouble than tunnels built in the past two years using more compact coils," Patterson also said. "The old coils have less friction drop and can carry more frost and still provide enough refrigeration at -30° or -40° for production freezing.

Minimize Dehumidification

"To minimize dehumidification we suggest that (1) you pre-cool the product to 40° F. with ice water, and, (2) use cold air with less capacity to pick up moisture from the loose product.

"For freezer rooms, especially, we think liquid ammonia recirculating systems are the most satisfactory type of installation," Patterson declared. "In its simple form the recirculating system permits liquid ammonia to circulate through the coils and thence to the accumulator. From the accumulator the liquid is pumped back to the coils. The suction line then runs from the accumulator to the compressor."

Such systems, which Patterson says have been readily adapted for automatic operation, offer several advantages over the conventional brine system used in multiple hook-ups.

"The horsepower required of the liquid ammonia circulating pump, for example, is only a fraction of what is required for a brine circulating system. You can also operate at higher ammonia temperatures."

In addition to promoting the recirculating type of system, Patterson revealed that recently his firm has been experimenting with fins on ammonia pipe coils. A continuous fin 2½ in. high is welded to the top, and another on the bottom, along the full length of the coil. With this arrangement, two rows of the finned pipe have as much heat transfer capacity as four rows of bare pipe, he declared.

By using the recirculating system and these "finned" pipe coils, the ammonia charge for a plant can be reduced 60%. This likewise, he pointed out, permits the surge drum to be cut 60% in size, because the amount of ammonia in a system determines the size of the drum.

For defrosting, Patterson suggests hot-gas defrosting, with the hot gas "being introduced at the bottom of the outgoing end of the coil. The secret of this method is that it uses the latent heat of condensation of the hot gas in the cold pipe to loosen the frost on the coil. Instead of having to wait until the ice melts, one can knock the ice off the coils in chunks."

For controlling large ammonia systems, he also described an oil-operated float control device developed by his firm. To be located outside the refrigerated space, the float switch mechanism has several advantages and uses, claims Patterson, such as:

Advantages of Float Switch

It requires no insulation; gives visible indication of liquid level, which can be changed easily without pumping out or removing insulation; does not freeze or stick since the float operates in oil at room temperature; it can be remotely located above, below, or level with the evaporator it controls; uses small uninsulated connections, usually ½ in., and when used to feed evaporators it has a wide range of capacities from a fraction of a ton to several hundred tons.

The operation of this float switch control is simple and positive, according to Patterson. With reference to the diagram published herewith, in normal operation, valves "A" and "B" are open and valve "C" is closed. Liquid ammonia surges out into the uninsulated horizontal line "E" and is partly evaporated. The gas thus formed must overcome the static head of liquid ammonia "Ha" as the only means of escape.

To get relief, this gas must exert the same force on the oil in the oil pot "F" as it does on the liquid ammonia in surge drum "G" and will push oil up into the oil column a distance equal to the height of liquid ammonia "Ha," making allowance for the difference between the specific gravity of the oil used and the specific gravity of liquid ammonia. Since liquid ammonia is constantly surging in and out of the horizontal line "E," there is no chance for this line to become fouled.

The column of ammonia gas between the relatively fluid boiling liquid ammonia and the relatively viscous non-boiling oil acts as a cushion and thus produces a very smooth and stable oil column to operate the float switch and indicate the liquid level, Patterson explained.

Then Comes Maintenance

After designing and installing a refrigeration system for a freezing plant or warehouse, there still remains the problem of maintenance and repair, Patterson emphasized.

"Too many installations in the past have stopped with the installation. The job is then only partly done, because we have to maintain the job so it will hold the temperatures and operate economically and safely.

"After the refrigeration plant is installed, the program of education begins. The plant has to be turned over to trained hands or it won't perform properly and efficiently and safely. There are few plants where the operating engineers really know whether the system is operating properly or not due to lack of proper education," he asserted.

"As soon as we get away from 'pressures' on gauges and use 'temperature' readings, the operating en-

(Concluded on next page)

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7. Polished and lacquered natural brass finish.
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LARGE VIEW shows patented compression spring which maintains constant pressure on the entire volume of dehydrant.

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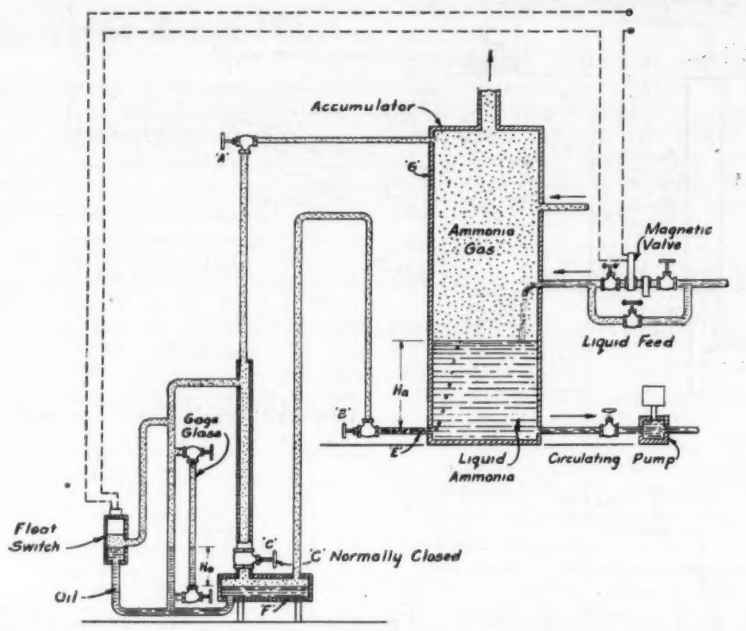
Oil Operated Float Switch Control for Ammonia



This oil-operated float switch control for ammonia is said to offer several advantages over conventional control methods, as one of the developers of it, V. C. Patterson, points out in the accompanying article, where its operation is described in full.

* * *

Consultant Explains How To Set Up Program Of Maintenance for Operating Engineers

(Concluded from preceding page)

gineers begin to take a real interest in the operation of a plant. Ordinarily when the operating engineer looks at a log sheet filled with readings in terms of pressure, he can't tell really what the operation of system has been."

Apparently there is a tendency on the part of operating engineers not to "translate" pressure readings to their corresponding temperatures, he indicated, but Patterson also cited the fact that the pressure-temperature relationship of refrigerants as shown on the charts applies only to the saturated liquid-vapor state and thus does not necessarily apply with 100% accuracy to all parts of the system.

Pressure gauges with an additional calibration in temperature are "accurate enough" in the high pressure-temperature range, but as they approach 0 lb. pressure and the vacuum side, the temperature scale becomes much too crowded to permit accurate reading, he said.

"You must have the refrigerant temperature in the evaporator. Ideally these temperatures should be taken by means of thermocouples, but it can be done quite satisfactorily with a thermometer in the accumulator or off a mercury column suction pressure gauge.

"Tell the operator also what the split in the condenser should be. Take the actual condensing temperature, because a pressure gauge is intended for pure ammonia and air in the system will raise the pressure so you'll get a false reading.

Put Thermometer In Liquid

"A thermometer in the liquid as it leaves the condenser shows the actual condensing temperature because the liquid refrigerant can't be subcooled in the presence of its vapor."

Where thermocouples cannot be built in to obtain accurate temperature readings Patterson suggests a well be fitted around the line at the proper point and filled with mercury. A thermometer inserted in the mercury will give an accurate reading, he said.

"Operating engineers crave proper guidance and education and they're interested in achieving 100% efficiency in plant operation. There should be a well laid out maintenance program sparkplugged by management, which would include such things as regular meetings on maintenance.

"Maintenance, of course, includes two major divisions—(1) breakdown, and (2) preventive. Any time a maintenance crew is kept busy 100% of the time on breakdowns, you're headed for trouble. Without time for preventive maintenance, your plant, like the one-hoss shay, is eventually going to need complete replacement.

"The first thing to do in setting up an education and maintenance program is to make a schematic diagram of all the piping and tag all the valves. The designers, not the operating engineers, should make this drawing, which should be colored to show the different parts of the system and the different states of the refrigerant.

Detailed Instructions Needed

"Then write up detailed operating instructions for every piece of equipment and include in this the manufacturer's instructions on the equipment."

Patterson cited one instance where the management of a plant wanted to bring in a somewhat experienced engineer to understudy the chief engineer so the latter could be promoted. The "chief" declared that "it would take a man two years to learn it."

Proper training of this man with the diagram and instruction sheet which had been prepared for this let the newcomer learn the system in 30 days, according to Patterson.

Said the chief engineer, "He learned more in 30 days than I did in 30 years."

After the diagram has been drawn up and the instruction manual prepared, the diagram should be put under glass and the manual chained to the board.

"This will help newcomers learn the details about the system quickly, but," Patterson pointed out, "a good chief engineer shouldn't worry about his understudies learning so much that they'll take his job away from him. The more his men know about the system the better and easier it will be for him."

In maintenance, safety methods "should not be forgotten," he pointed out. "Keep gas masks in good order. Watch fire extinguishers and keep them in good operating condition.

"We find it advisable to check in advance what should be done in case of an emergency. A list should be made up listing the steps, and this should be kept quite simple, such as:

"1. Pull fire switch.

"2. Shut king valve.

"3. Open bleed valves in liquid lines to lower pressure.

"With automatic plants, design them so that if they fail, they'll fail 'safe.' Refrigerant, for example, should be stored in the low side, and the compressor starting controls should be so designed that in the event of a power failure, the compressors will come back on automatically when power is restored."

New Air Conditioning Firm Formed In Salt Lake City

SALT LAKE CITY—Formation of Refrigeration Distributors Corp. to specialize in air conditioning equipment has been announced by Ted R. Brown, president.

Headquarters of the firm, which will do business in Utah and western Colorado, are at 415 S. West Temple here. Warren Brown is vice president of the company and Kathryn Brown, secretary.

Prior to organization of the new concern, Ted Brown was associated with his brother, Warren, in the air conditioning field in Price, Utah. He was graduated from the University of Utah with a mechanical engineering degree.

Chicago Tribune Tests Glycol Vapor Sterilizer In Ad-Taking Offices

CHICAGO—Sterilization of air in offices with glycol vapor will be tested this winter in the Chicago *Tribune's* telephone ad-taking area, Dr. Theodore Van Dellen, head of the *Tribune* medical department, disclosed this week.

Health records maintained by the *Tribune* will enable the medical department to compare the time lost through sickness during the test period with records for the same period last year. Sterilizing of air throughout the entire new eight-story annex to Tribune tower may be attempted if an appreciable improvement results from use of the vapor.

Liquid glycol, vaporized as it spirals around a heated pipe and distributed throughout the room by a fan, is expected to kill many harmful bacteria.

Some modern medical authorities suggest that glycol clinging to the membranes of workers' lungs may protect them for a short while even after employes have left the office.

Equipment to be used in the *Tribune* test is a little bigger than a standard typewriter case and is operated by electricity from an ordinary wall socket. Dr. Van Dellen hopes to attach such a device to the air conditioning system in order to sterilize all the air in the Tribune tower annex as it is circulated if the test indicates that the glycol vapor is effective.

Frigidaire Conducts Series Of Air Conditioning Schools

DAYTON, Ohio—A series of regional air conditioning application schools for key representatives from 45 districts across the nation are currently being conducted by Frigidaire Div. of General Motors, C. F. Wood, air conditioning sales manager, has announced.

Each regional school is of one-week duration and covers all phases of application work on packaged and central system air conditioners, including selecting equipment, placement, and duct installation. Wood added that special emphasis will be placed on business, institutional, and industrial type applications.

The remainder of the schedule follows: March 7, Pacific region in Los Angeles; and March 28, Eastern region in Philadelphia. Schools have been held in Dayton, Dallas, and Atlanta. Instructors are R. Woodward and Fred Schulenberg, both of the factory air conditioning sales organization.

Macy's New Flatbush Store Has Electronic Air Cleaning

BROOKLYN—Complete air conditioning and electronic air cleaning are features of the new Macy's—Flatbush store which opened for business here last November.

Another feature is the use of "warmtone" fluorescent lighting throughout the store. This type lighting is designed to bring out the natural colors of the merchandise, according to store officials.

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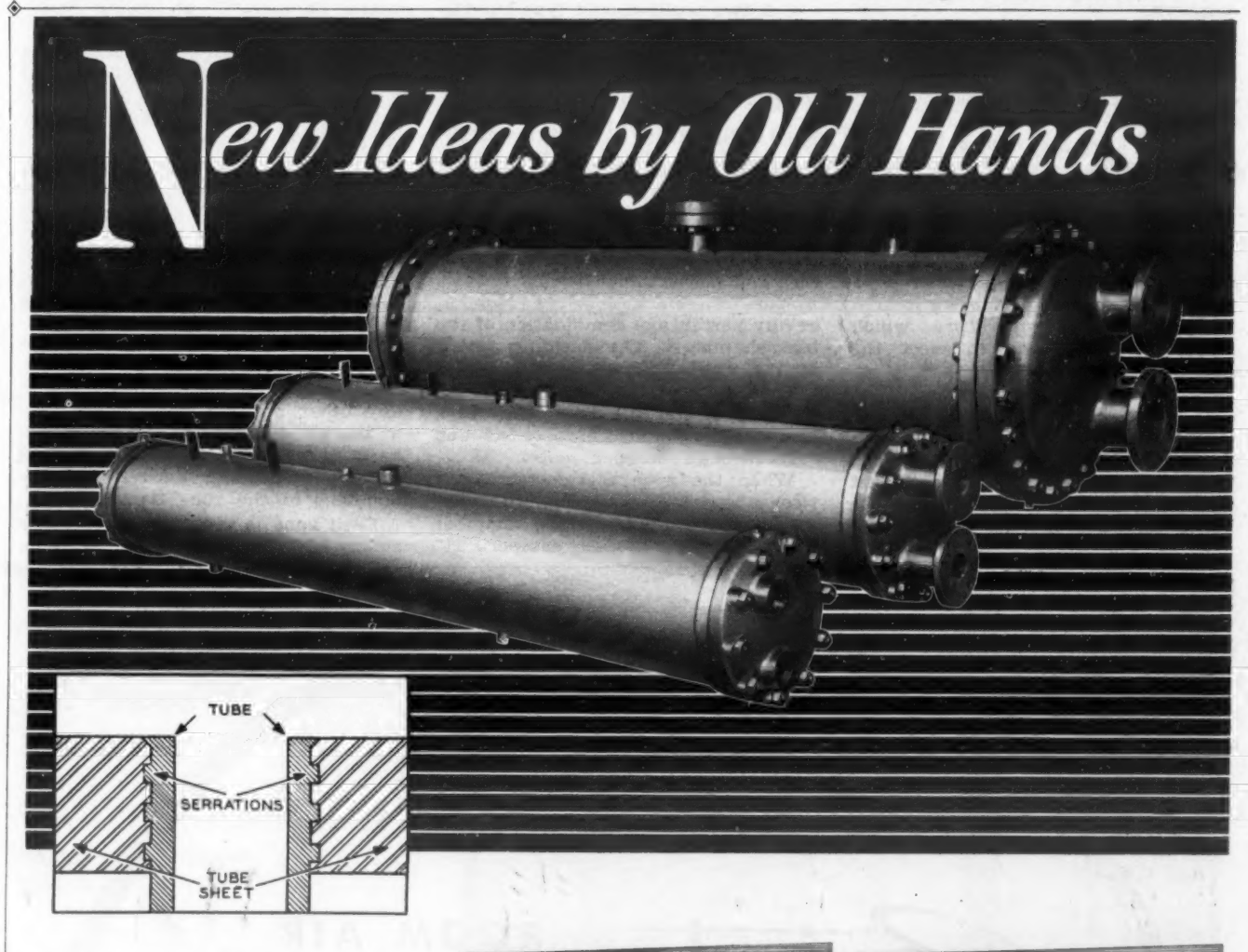
New Ideas by Old Hands



●Yes, sir, there *is* something new under the sun! Here's radically improved construction in refrigeration equipment—by old hands in the business who have spent over a quarter century in learning the tricks of better heat transfer.

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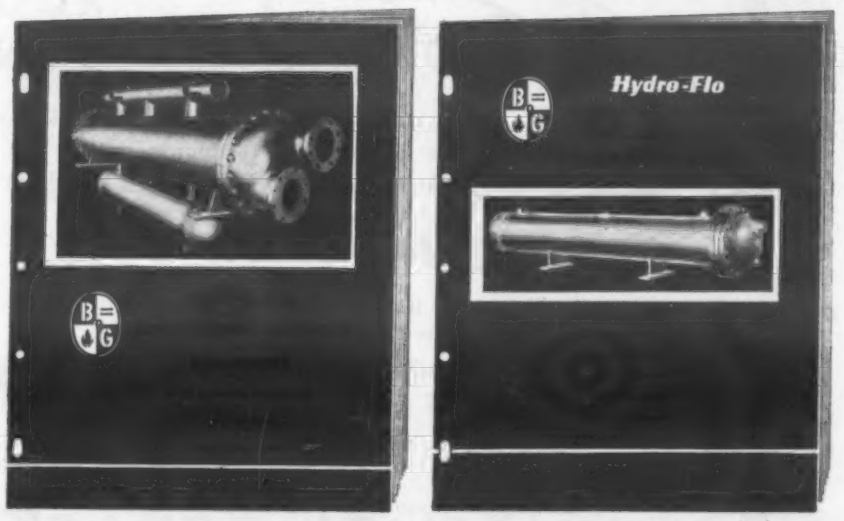

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Automatic Controls (Cont.)

BLOW-THROUGH SYSTEM

Fig. 38 shows a "blow-through system" which may be used for zone control.

It should be used for year-round systems where cooling, dehumidifying, heating, and humidifying are required.

This type of a system and control is considered to have advantages over other zone control systems, but the first cost will be slightly higher.

In general, this system has the air filters in the casing on the suction side of the fan. The heating and cooling coils are on the discharge side of the fan in separate casings, one above the other, with an outlet out of each casing, where mixing dampers are located.

Outlets from each casing are joined together, and a common duct is run to each zone. Any number of zones may be used, each zone duct to have its respective mixing dampers.

A room thermostat in each zone will operate its respective mixing dampers to supply the proper quality of air required to meet the condition of the respective thermostat.

In this case, five zones are used for illustration.

For illustration let us assume the following:

a. Summer cooling operation.

It is intended to carry 80° F. d.b. temperature in the zones when it is 95° F. outside. It has been figured that the d.b. temperature which must leave the coils to meet the above condition is 59° F.

b. Winter heating operation.

It is intended to carry 74° F. d.b. temperature in the zones when it is 0° F. outside. It has been figured that the temperature which must leave the heating coils to meet the above condition is 110° F. in spring and fall, and 130° F. in winter.

It has been figured to carry 30% relative humidity during the entire heating season.

The following control equipment is used:

1. Duct modulating type thermostat ($_{d}T_{m}$) set at 59° F. to control modulating expansion valves on cooling coils. All expansion valves are to be modulated at the same time.

2. Duct modulating type thermostat ($_{h}T_{dm}$) set at 110° F. or 130° F. to control modulating type automatic steam valve (V_m). All steam valves to be modulated at the same time.

3. Modulating type room thermostat ($_{h}T_{m}$) one in each zone area (in this case there are five) to operate the five modulating type power motors (M) which are connected to mixing dampers "C" and "H" (five sets) by linkage in such a manner so that when mixing damper "C" is closing, the mixing damper "H" is opening and vice versa.

4. A two-position duct type humidistat (H_1) is located in the return air duct to control the two-position water solenoid valve (S_w) on the water line to water sprays.

SUMMER COOLING OPERATION

Under this condition the heating chamber becomes the by-pass, as the heating coil is kept out of operation.

The amount of air to each zone should be constant at all times. This air may be supplied 100% from the by-pass or from the cooling chamber, or any percentage combination of the two chambers. The deciding factor is the condition in each zone, as transmitted to the chambers by the zone thermostat ($_{h}T_{m}$), which in turn operates the mixing dampers "C" and "H" through damper motor "M".

When the zone thermostat ($_{h}T_{m}$) rises above 80° F. setting, the mixing damper "C" at cooling chamber opens and the mixing damper "H" at the by-pass closes in a modulating fashion until zone thermostat is satisfied. When zone thermostat drops below 80° F., the mixing damper "H" at by-pass opens and the mixing damper "C" at cooling chamber closes.

Each set of mixing dampers moves in opposite directions, always supplying the same total amount of air, no matter in what position the mixing dampers may be.

When the mixing damper "C" at cooling chamber is wide open and the by-pass damper "H" is closed, nothing but 59° F. temperature air is delivered to that zone. When the mixing dampers are in the opposite position nothing but 83° F. air (assumed to be the mixture of air entering cooling coils or fan in this case) is delivered to that zone.

When the mixing dampers are in any other position, the temperature of the air delivered to the zones will be anywhere between 59° F. and 83° F., depending entirely on the demands of the zone thermostats.

Each zone is independent of other zones and therefore any one zone can call for any temperature of air to satisfy that particular zone.

Reheat in this case is accomplished by using the air from the by-pass.

SPRING AND FALL OPERATION

During the spring and fall seasons, when cooling and heating may be required, the heating coil is placed into operation. The air passing through the heating chamber can be heated to a pre-determined figure, say 110° F., which will be the setting of the duct heating thermostat ($_{h}T_{dm}$).

In this case the operation is the same as above with the exception that the highest temperature in the heating chamber will be 110° F. and the temperature out of the cooling chamber will remain at 59° F.

WINTER HEATING OPERATION

When the outside temperature drops to about 50° F. it is generally safe to shut down the compressor, as cooling will probably be required no longer. This shut-down point of the compressor will vary according to the internal heat load of the space.

The cooling chamber now becomes the by-pass.

If the zones are to be carried at 74° F., the mixture of the air entering the fan, say, is 65° F. (this mixture in winter will vary according to the outside temperature). This 65° F. air enters the heating coil and is raised in temperature to the winter-setting, say 130° F., while the mixture passing through the cooling chamber or winter by-pass remains at 65° F.

The heating of the zones is accomplished in the same manner as heretofore described, except that the highest temperature of the heated air is 130° F. and the by-pass air is 65° F. The air to each zone may be 130° at the highest, or 65° at the lowest, or a mixture of the two at some temperature between 65° and 130°, depending entirely upon the demand of the zone thermostat ($_{h}T_{m}$).

Humidification in the heating season is accomplished by the humidistat (H_1) located in the return air duct. This opens the water solenoid valve (S_w) when the humidity of the air drops below the setting of the humidistat, which in this case is 30%, and closes the water solenoid valve (S_w) when the humidity of the air rises above the 30% setting of the humidistat.

Fig. 38 shows the zone thermostats to be set manually. The compensated dry-bulb temperature control as shown in Fig. 18 can be applied to set the zone thermostats automatically in the summer only, and to hold a set temperature during the heating season.

On the refrigeration cycle it is necessary in this type of a system to use modulating type expansion valves and suction control valve, for close operation of the system. The expansion valve is not a modulating type in itself, but the control manufacturers can provide attachments to the expansion valve to make it operate in a modulating fashion.

Individual coils must not be cut out. All coils must operate as one coil. All expansion valves to be operated together as if one valve.

There are certain points to keep in mind when designing this type of a system:

1. The resistance pressure through the heating chamber must be the same as through the cooling chamber when all of the air is passing through one or the other.

If the resistance pressure through chambers varies no more than .1 in. of water or less when passing all of the air in comparison when passing 50% through each chamber, it is considered to be well balanced. This will mean that the total air supply will vary on the system to about 10% more air under certain operating conditions, which will not be a detriment to the proper operation of the system.

Ordinarily, this will take care of most of these types of systems.

2. When the resistance pressure through the chambers varies more than .1 in. of water when passing all of the air in comparison when passing 50% through each chamber, it is necessary to provide a balancing regulator.

As the air leaves the fan it will distribute itself to the heating and cooling chambers according to the demand from the zone thermostats from each chamber. This demand from each chamber will vary practically at all times. Because of this variation the resistance pressure in each chamber will also vary.

As this resistance varies, it will also vary the amount of total air delivered by the fan, as the lessening and increasing resistance in the chambers will affect the resistance on the fan. In order to keep the air supply within proper limits at all times a resistant pressure regulator should be used as shown in Fig. 39.

(To Be Continued)

'Blow-Through' System May Be Used for Year-Round Zone Air Conditioning

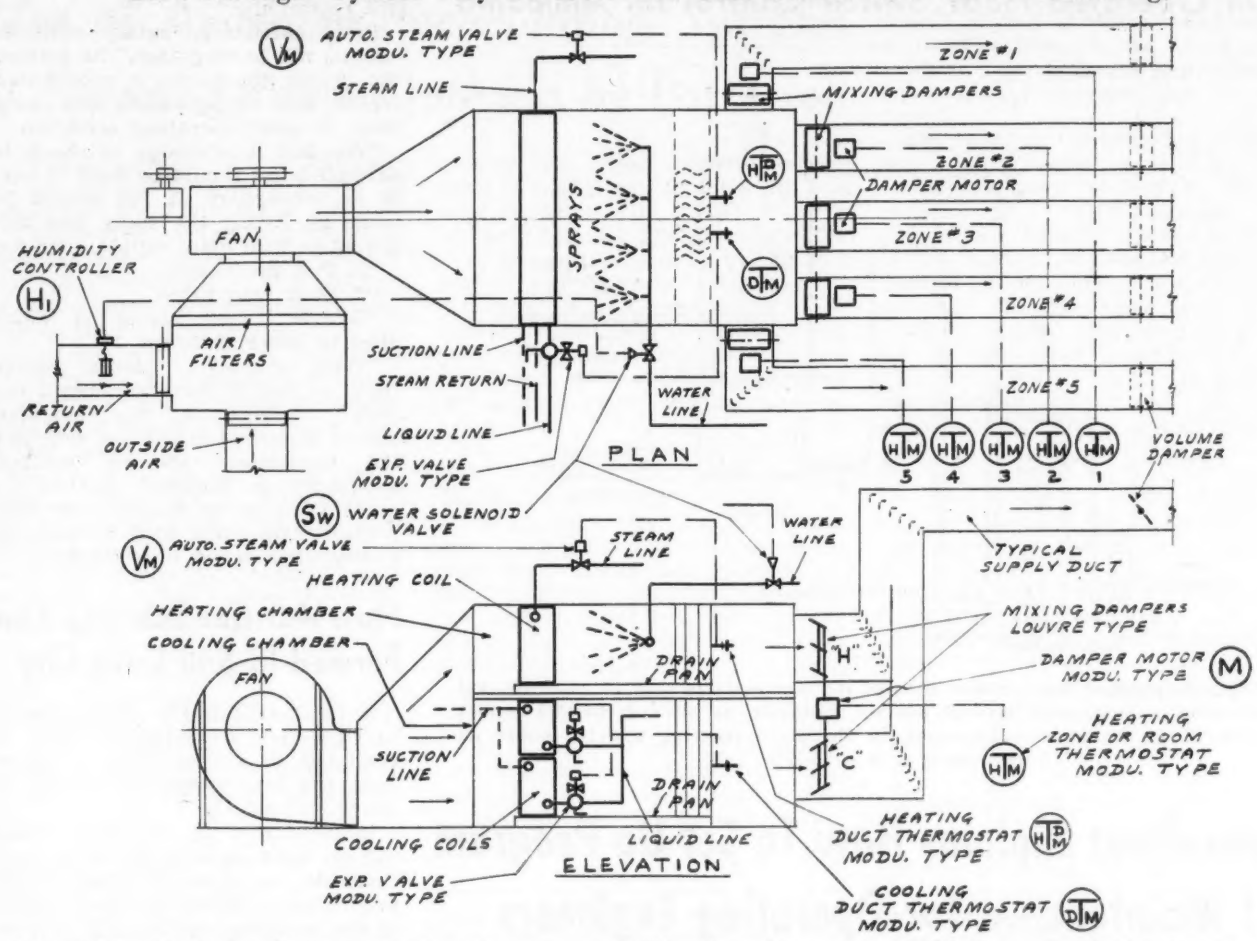

Fig. 38 shows both the plan and elevation of a year-round "blow-through" type air conditioning system having five zones. Details of the controls and their manner of operation are described in the accompanying text.

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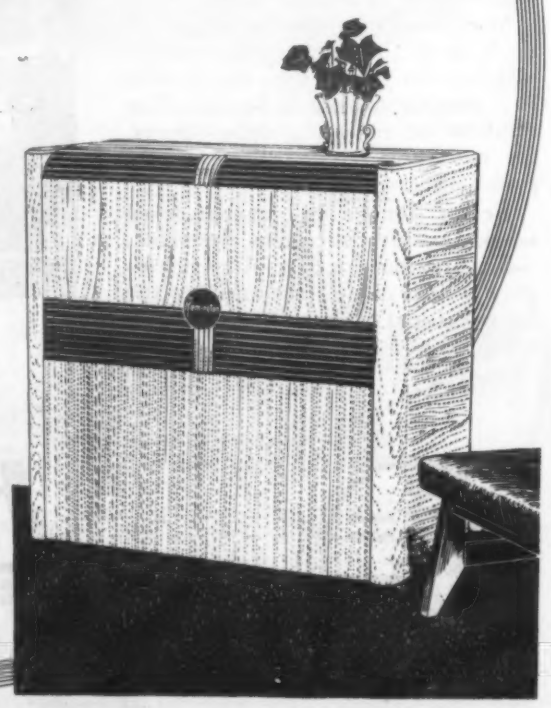

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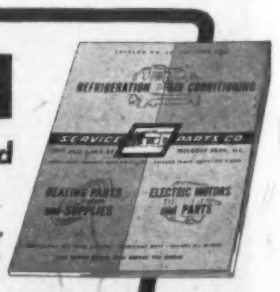

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Elmore, Spencer Named To Head Norge Range Plant

DETROIT—J. G. Elmore, who has been with the Norge Div. of Borg-Warner Corp. for 20 years, has been advanced to the position of plant manager of the company's range manufacturing division in Effingham, Ill.

At the same time, H. L. Spencer, director of manufacturing, announced the appointment of K. E. Anderson to the position of assistant plant manager at Effingham, and the expansion of the company's service department in Muskegon, Mich.

Appointments of Elmore and Anderson followed the resignation of C. E. Smith, former plant manager.

New Directory Lists Public Warehouses In U.S., Foreign Countries

WASHINGTON, D. C.—A new "Directory of Public Refrigerated Warehouses" has just been published by the National Association of Refrigerated Warehouses.

This book contains complete listings of all the services and facilities of some 450 public refrigerated warehouses throughout the United States, its possessions, Canada, and eight foreign countries.

It also contains similar listings of NARW associate members—suppliers to the refrigeration and perishable foods trades.

It is designed as a desk book for executives, sales and traffic managers, and others interested in the storage of perishables. Listings are conveniently arranged alphabetically by states and cities for quick reference.

Copies are available without cost or obligation only to those concerns actually engaged in the production, processing, transportation, storage, and marketing of perishable foods. Requests should be addressed to the National Association of Refrigerated Warehouses, 608 Tower building, Washington, D. C.

Rising Interest In Freezers, Seen at Pennsylvania Farm Show

SMYRNA, Del.—Aubrey Davis, vice president in charge of sales, Wilson Refrigeration, Inc., who attended the Pennsylvania Farm Show at Harrisburg in January, reports more real interest in farm freezers and milk coolers than ever before.

Arizona Colleges Survey Family Frozen Food Use

PHOENIX, Ariz.—A survey, said to be the first of its kind to be undertaken anywhere in the country, is being conducted here to establish the economic and nutritional values of frozen foods and the conveniences resulting from their use.

The study is being carried out by the University of Arizona and Arizona State college at Tempe under the direction of the U. S. Department of Agriculture. Nine local home freezer distributors contributed $3,150 to finance the project.

State College students are currently making a house-to-house survey of home freezer owners to determine where the owners get their frozen foods, how often purchases are made, which frozen foods are preferred, the effect on the family's food budget, and the reaction of the family to frozen products.

Ranco Shifts Facilities To Boost Control Output

COLUMBUS, Ohio—Ranco Inc., manufacturer of refrigeration and automobile heater controls, recently moved the complete production of its automobile heater controls to its new plant at Delaware, Ohio.

Removal of automobile heater control production to the new plant released space needed for the company's expanded production of refrigeration controls, of which it has manufactured more than 20,000,000.

The new plant includes six large completely insulated quonsets with over 90,000 square feet of floor space.

'Canvass' Truck Carries Freezers Right To Farmer's Door, Nets Dealer Many Sales

JEFFERSON CITY, Mo.—Instead of waiting for the farmer to come in and buy appliances dealer Herb Gordon here loads up an ordinary one-ton stake truck about twice a week, and virtually "takes the appliances right to the farmer's kitchen."

Since 1946, Gordon, who operates a General Electric dealership, has sold more than one-third of his annual volume to farmer-prospects, both by means of consistent radio advertising, and through farm-to-farm canvassing with the stake truck.

Radio advertising constantly invites farm wives to come in and see demonstrations of labor saving appliances, or farmers to talk over home freezers. The firm stages many demonstrations with visiting women home economists, and invariably pulls a full house of farm wives when announced over the air.

Gordon follows up his farmer prospects in two ways. One full-time salesman, who grew up on a farm near here covers the local territory in his automobile, often travelling as far as 60 miles both ways to cinch a hot prospect.

Very familiar with local farming, the specialty salesman can "talk the farmer's language" and often makes sales where a busy farm operator would give little time to a stranger.

Where possible, the salesman makes an appointment to drive the farm couple into Jefferson City in his automobile for a demonstration.

More immediately effective is the use of the truck, which normally carries a refrigerator, electric range, home freezer, automatic washer, conventional washing machine, and one or two other appliances.

Covering as much as 200 miles in a day, the truck either follows up direct leads, or canvasses from farm to farm.

If the housewife is interested in seeing a particular appliance in action, a dolly makes it possible to wheel it right into the kitchen. Even refrigerators have been moved in in this way, and special features demonstrated.

Home freezers have sold rapidly after being demonstrated "on the spot" where the farmer can visualize himself freezing pork, poultry, and beef for the family table.

Some appliances, notably washing machines and sit-down ironers, are left for three or four-day trial periods, after which the farmer usually sends in his check.

The truck waits until enough calls have been made up to form an "itinerary" and after completing these contacts, waits again. When business is slow in Jefferson City, the truck is pressed into service for cold-canvassing.

Sales of a home freezer, refrigerator, and range all at once to prosperous farmers have made the system quite worthwhile, according to Gordon.

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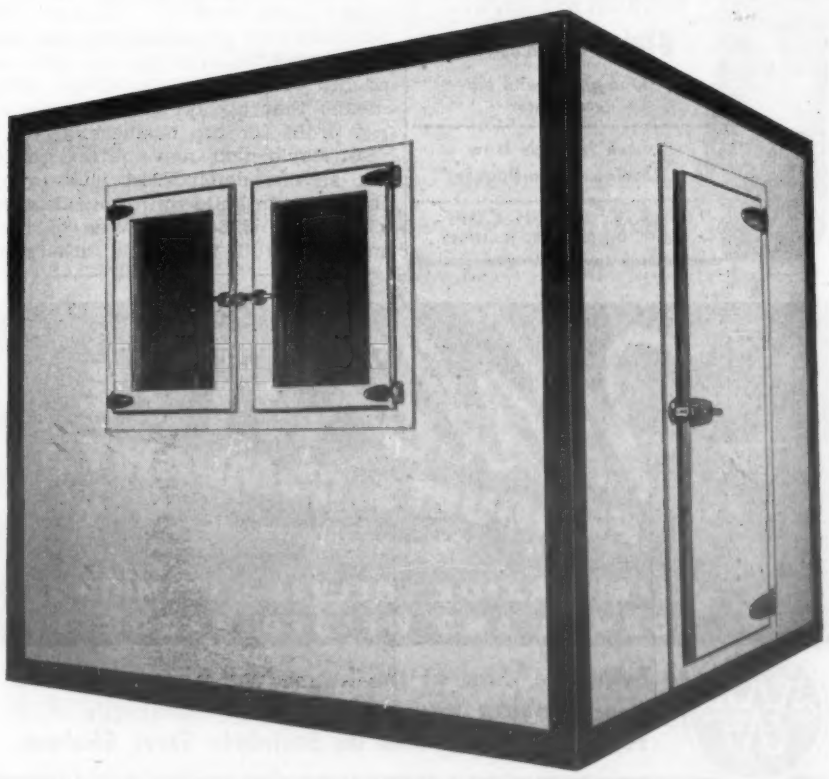

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Successful Suburban Appliance Dealer Pays Overhead from Service Shop Operations

Prospects enough to last the salesmen at Bireley's Appliance Shop, Royal Oak, Mich., for weeks are secured from this exhibit which the store sponsors yearly at the Detroit Builders' Show. The mop, which is being demonstrated at the left, is used as a door opener. But C. W. Bireley, owner of the dealership, is inclined to give most of the credit for the store's success to experience and an effective service department, which pays all of the store's overhead.

ROYAL OAK, Mich.—Specialty selling methods gleaned from 33 years experience in the sale of appliances, plus an effective service department, have built a highly successful dealership for C. W. Bireley, owner of Bireley's Appliance Shop, here.

In the face of rugged competition from many appliance stores in this highly populated area near Detroit, Bireley's expanded four times in the past three years.

Further, management of the dealership is now so well organized that Bireley can spend winters in Arizona and summers in Northern Michigan while "the boys" run the business.

C. W. Bireley has a long and enviable record in the appliance trade. He joined the Hoover Co. in 1919, after spending three years as a field man for Westinghouse, and soon gained prominence as the most successful Hoover salesmen of all time —with a record for 48 cleaner sales per month for two years straight.

According to Bireley, this record has never been equalled or approached by any individual. Later he became manager of Hoover sales in Detroit, handling 25 managers who supervised the work of some 250 outside salesmen.

Early in 1942 Bireley retired from active duty with the Hoover Co. and opened an appliance shop at his present location, which is in a residential district just off one of the main thoroughfares.

At that time the building consisted of a 3-car garage, and while the location had the advantage of easy parking it was not "downtown" and there was no retail traffic. The "garage" has since become a modern building with two showrooms.

TWO HOURS DAILY ON PHONE

To begin building his service operation Bireley spent from 9 to 11 every morning on the telephone, calling the better homes in nearby "silk stocking" districts.

"It was impossible for a door-to-door salesman to get into these homes," Bireley asserted, "but telephone canvassing offering to repair cleaners and other appliances soon brought real results, and we had all the business we could handle. Appliances came in for repair at the rate of 12 to 15 a day."

While Bireley has not done any telephone canvassing for over a year now, he gets calls almost every day from customers who were originally contacted by this method.

By advertising his service department consistently in newspapers, by direct mail, and by "drilling out" business over the telephone, the Bireley service department now pays all of the overhead of the store, which means that all appliance profits are net profit for the business.

Bireley's next move, after getting his service department well organized, was to build up an organization of outside salesmen. Some of these men are full time, and others act as "bird dogs" for the store, but all have added to the success.

To obtain prospects for these men Bireley purchased up-to-date lists of home owners in his district, circulated the list by direct mail, and instructed his salesmen in how to make direct contact with them.

To give his men a "door opener," Bireley took on the exclusive distribution of the "Dufold" mop, which has a flat rubber sponge that can be squeezed dry from the handle, without putting the hands in dirty water. Over 1,000 mops have been sold.

Another method of getting prospects is to take a large booth each spring in The Detroit Builder's Show where salesmen for the company sell Dufold mops and demonstrate various major appliances.

Mrs. Bireley states that floor traffic has been so heavy at recent shows that it is necessary to have one or more typists on duty at all times to record the names of prospects.

FILM PROVES GOOD TOOL

In the sale of appliances Bireley believes in using every merchandising aid at his command. When he first saw a sound slidefilm made by Dexter Twin Tub washers for dealer consumption, he immediately decided it would be a good "tool" to use on prospects.

As a result he purchased a portable sound slidefilm projector and screen, which he takes into the homes of prospects.

"When I show this film to a prospect in her home it seldom fails to make a sale," Bireley related. "After all, I can't move a Dexter washer into every home where I want to make a demonstration and the film tells a complete and convincing story. It's the best sales tool I've ever had to work with."

MORE FREEZER EDUCATION NEEDED

Bireley reported that while the television business is booming—"Every set in the store is sold and I can't get them fast enough"—he has had trouble making a dent in the home freezer market.

Bireley feels that most home freezers are being "bought" by people who know they want them and few are being "sold." He feels that the manufacturers, distributors, and dealers will have to do a better job on educating the public in the use and advantages of home freezers before the business will grow rapidly. And like most appliance dealers, he is too busy to undertake the job alone.

He stated further that the refrigerator business continues to be steady but electric range sales have been booming in recent weeks.

Bireley likes to sell the Gibson "H" range, which is the highest price range in the Gibson line, with the most features. "Why I sold three of those ranges last week," Bireley said, "and I'm ordering more from the distributor."

But despite the fact that Bireley's does a good business in major and minor appliances, Bireley's first love is service.

"We get all kinds of business from the Detroit hotels," he states, "maintaining their vacuum cleaners and other appliances—that's good business and few dealers ever think about going after it."

To speed up service on vacuum cleaners, Bireley's have installed a special "renovating machine" that not only "renews" the cleaner bag, but a special chemical is used to remove all trace of musty dust odor. When the job is completed the cleaner looks, operates, and smells, like new.

SERVICE REPAIR TAG ⊙ To be returned ☐ Picked-up ☐

APPLIANCE SERVICE DATE

DATE REC'D A.M. P.M.

FIRST NAME MIDDLE INITIAL LAST NAME

ADDRESS PHONE NO.

MODEL SERIAL NUMBER

NATURE OF TROUBLE

BIRELEY'S APPLIANCE SALES AND SERVICE

24 YEARS EXPERIENCE

SERVICE REPAIR TAG

EXPERT REPAIR ON VACUUM CLEANERS, WASHERS AND ALL APPLIANCES

310 W. Hudson Royal Oak

LINCOLN 2-2590

CUSTOMER'S RECEIPT

MODEL SERIAL NUMBER

REC'D. BY SERV. SLSM. DATE

The tag, reproduced above, serves as a receipt, as well as a shop tag.

When an appliance is picked up by Bireley's service department the customer is given a "receipt" which is half of a special "Service Repair Tag." The tag is then attached to the appliance.

The customer's receipt, or claim check, has the model, serial number, service salesman's name, and date on it. Further, each tag has a serial number that is recorded in the company books.

GOOD ACCOUNTING ESSENTIAL

Bireley feels that good accounting is essential to the operation of a successful dealership. For this reason he not only employs a full time bookkeeper, but has an auditor who comes in once each month and prepares a statement on the condition of the business.

Trusted Bireley employes have been empowered to sign checks, which makes it possible for Bireley to take long vacations in both summer and winter.

While Bireley uses capital from a local finance company to finance customer paper, he does not "floor plan" any merchandise. Policy of the store is to take a cash discount by paying for the merchandise within 10 days of delivery.

As a result Bireley's is now rated in Dun & Bradstreet, a fact of which Bireley is proud. All customer payments on appliances are made at the store, however, which is an additional factor in building floor traffic.

"It would be hard to tell just what makes this business tick," Bireley said, "but I guess it's mostly experience. I have been in the business 33 years, and my service manager, Joe Middleton has been in the business 17 years—that's a total of 50 years of experience right there.

"I guess it's a combination of all the little things we've learned over the years that makes the business go. . . . I don't know what you'd call it—unless it's experience."

Household Dealer Sales Reported 5% over '47

WASHINGTON, D. C.—Dollar sales by independent household appliance dealers for 1948 were 5% higher than for 1947, though sales for December were 2% below those of the last month in 1947, the Census Bureau reported recently.

The bureau listed the percentage gains or losses for both the year 1948 as compared with 1947 and for December, 1948 as compared with December, 1947 in 50 different retail categories.

The extremes of percentage gain or loss in both categories and the record of a few classifications of interest to the appliance industry are noted below:

Business	December	Full Year
Farm equipment	8	20
Dairy products	12	10
Fuel and ice	– 1	15
Lumber, building materials	– 7	15
Department stores	2	5
Radios	– 4	4
Hardware	– 1	2

Utah Appliance Dealer Turnover Reported Heavy

SALT LAKE CITY—A particularly heavy turnover in the household appliance and several other business fields has accompanied an increase in the number of retail businesses operating in Utah.

This was revealed by the State Tax Commission in a report prepared for submission to the governor and 1949 Utah Legislature.

"There were 13,211 merchants on commission (sales tax) records last June 30, compared with 10,913 two years ago, an increase of 21%," the report revealed.

"This increase in the number of commercial enterprises has not been accomplished painlessly, as evidenced by the turnover among taxpayers which is much greater than the 21% increase.

"A somewhat casual examination of the lists shows that in Utah the turnover in cafes and restaurants, grocery stores, automotive dealers and in household appliance businesses has been particularly heavy," the commission reported.

Admiral Distributor Branch Appoints 2 Sales Managers

NEW YORK CITY—Edward Lehrer has been appointed appliance sales manager and Charles Andress was named radio and television sales manager of the New York distributing branch of Admiral Corp., E. R. Glauber, general manager of the branch, has announced.

They will work under the direction of Martin L. Scher, general sales manager.

Lehrer was formerly sales manager of the Pilot Radio Corp., and prior to that was district manager of Motorola-New York, Inc.

Andress was with the Admiral organization in Washington, D. C. and prior to that was associated with Raymond Rose Co., Inc. of Philadelphia.

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What's New

Refrigerated Bar Handles Variety of Soft Drinks

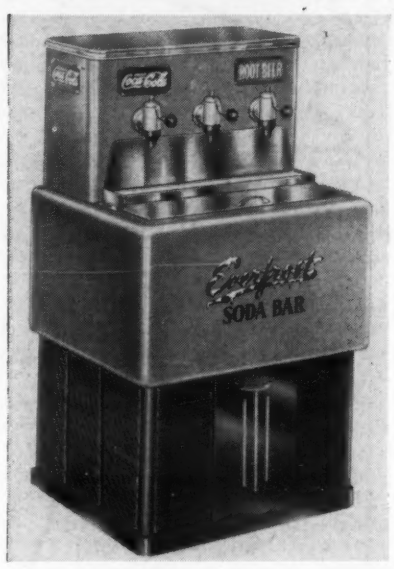
LOS ANGELES — A completely self-contained soda bar for dispensing sweet water and carbonated drinks is now being manufactured under the trade-name Everfrost by Anderson & Wagner, Inc. at 8701 S. Mettler St. here.

The soda bar, which can dispense either two or three different sweet water or carbonated drinks, contains a compressor and a patented refrigerated carbonator and water cooler.

The latter device cools water to below 38° F. Syrup is cooled in fully refrigerated containers to about 25° F. so that when it is combined with the water is actually serves as a piece of ice, the company report said.

The cabinet of the bar, which is finished in either a red or white Dulux enamel top section and a black Dulux enamel base, requires less than 30 in. of space for installation.

The unit can be hooked up by merely attaching a water inlet line and plugging into a convenient electrical circuit.



A removable drip pan is provided so that permanent drain connections are not required. Thus the unit can be set up for temporary installation when desired.

Brotman Makes Small Capacity Cabinet Washer

DETROIT—A brand-new cabinet type, small capacity domestic clothes washer with top loading facilities is announced by Brotman Mfg. Co.

Called the Launder-King, the machine can wash 4½ lbs. of clothes per load in a tub that has a capacity of 8 gals. of water. It features a "roll-a-vator" washing action that "cleans clothes by gently rubbing and tumbling through literally torrents of water."

The machine, also known as model M-1000, is 17¼ in. square and stands 28 in. high. It is mounted on casters for ready movability. The tub is steel with white porcelain enamel. Transmission gears are of steel and completely sealed in oil. They are covered by the manufacturer's warranty.

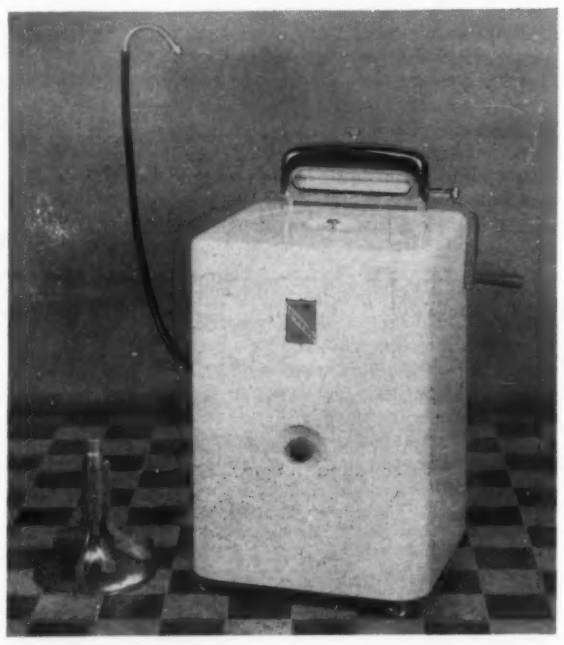
A pump is provided which will empty the tub in 1½ minutes. The pump impeller can be removed from inside the tub as readily as an ordinary drain screen, the manufacturer said.

The large size wringer has an adjustable pressure control. It can be removed for storage in the side of the machine, thus allowing the machine to be used as an utility cabinet if desired, Brotman said.

The manufacturer stated that distribution is direct to dealers with April delivery scheduled.

Retail price is $49.95.

The Brotman firm is located at 303 Hofmann bldg., 2539 Woodward Ave.



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Arctic Ice Cream Vendor Can Be Easily Serviced

APPLETON, Wis.—Recently placed on the market by Arctic Vendor Sales Co. here is a fully-automatic, coin-operated vending machine with an announced capacity of 151 ice cream bars or ice cream sandwiches.

The refrigeration system includes a ¼-hp. Kelvinator open-type condensing unit, an aluminum tank with ⅜-in. copper tubing spot welded on the outer side, a thermostatic expansion valve located in an insulated steel box outside the refrigerated space, a heat exchanger, a "TrapDri" dryer, and a temperature control.

Temperature is said to be maintained between -2° and -8°.

Cabinet of the "Arctic Vendor" is finished in lacquer over 20-gauge "PaintLok" steel. Four-inch Fiberglas insulation is used, sealed in with a flexible permagum.

Other features include a top refrigerator door for loading merchandise, a large front door for servicing, an illuminated advertising panel, an automatic coin-changing mechanism, and a "frost free" rack.

The rack incorporates a direct-chain-driven conveyer powered by a double gear reduction unit on a 1/60-hp. motor. "Empty" and "no change" indicator lights are also provided.

All parts of the machine are easily accessible for service and repair.

Household Conditioner's Glycol Vapor Kills Germs

JOHNSTOWN, Pa.—A new self-contained, air-treating unit for the home, that cleans, freshens, humidifies, and controls relative humidity of air passing through it, is being marketed by National Air Conditioning, Inc. here.

Known as the "TEG" conditioner, the unit vaporizes triethylene glycol into its airstream. This is said to produce a killing action on certain types of airborne bacteria.

The motor-driven blower of the TEG conditioner draws air through the unit, over a permanent, glass fiber filter-cell. This filter-cell is saturated and flushed continuously by liquid Tegelene, that is circulated by a small sump pump.

Air passing through the filter-cell is cleansed of dirt particles by intimate contact with the Tegelene and the wetted glass fibers. This residue dirt which tends to build up, is continuously washed off the cell by the flushing action of the purifying liquid. Replacement of the cell is said to be rarely necessary.

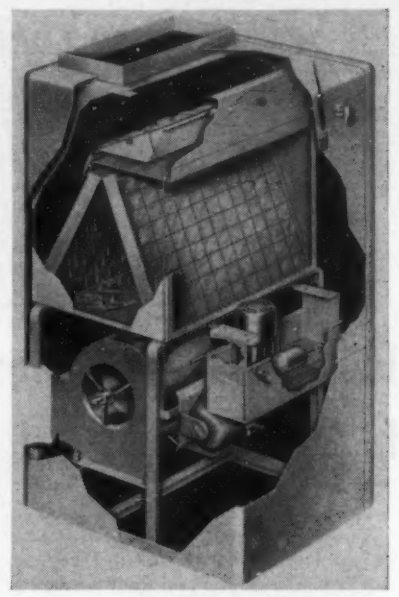
Air passing over the saturated filter-cell, is humidified by the water in the Tegelene. It also picks up an infinitesimally small amount of triethylene glycol vapor, which has the unique property of killing certain types of air-borne bacteria which cause infectious diseases.

This glycol vapor is most effective under controlled conditions of relative humidity in the home provided by the TEG conditioner.

After passing through the filter-cell, air passes through a fiber glass eliminator mat, to remove any particles of entrained Tegelene. Air then passes through the blower and into a duct system, or directly into the home, as required.

An automatic float valve located in a sump tank admits water to the sump when it is reqiured, to maintain a fixed proportion of water and Tegelene. For every concentration of Tegelene-water solution, the air in contact with this solution is at a definite relative humidity.

By automatically maintaining a fixed concentration of Tegelene-water solution, relative humidity of air in contact with the Tegelene is automatically controlled without use of humidistats or other controlling instruments.



The TEG conditioner is patented and has been under development and test in laboratories and in field applications by National Air Conditioning, Inc. for several years.

Scores of these units are said to be giving satisfactory service in homes throughout the country, particularly to hayfever and asthma sufferers.

Although it has been used primarily in conjunction with warm air heating, the new TEG conditioner may also be installed to operate in connection with a steam or hot water heating system.

By draining the Tegelene from the sump and replacing it with water, the unit can be used as an effective air-cooling device for summer.

As an extra protection, all metal parts of the TEG conditioner coming in contact with the non-corrosive Tegelene have been galvanized. The conditioner's blower motor is ¼ hp. and the pump motor is 1/30 hp.

The water connection is adapted for a ⅜-in. flared copper tube fitting. This conditioner stands 56¼ in. in height, 26 in. in width, 35 in. in depth, and has a shipping weight of 400 lbs.

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America's Foremost Line

You're 'way ahead in water cooler profits, right from the start, when you sell the big, feature-packed OASIS line.

OASIS coolers *sell better* because they're built to *serve* better—by the world's largest maker of electric drinking water coolers.

A choice of OASIS models and sizes is available for every need. Bottle and pressure types, for AC and DC operation.

Capacities range from Model OP-5, for smaller offices, to Model OP-20-G, which features two glass fillers and serves up to 235 people per hour.

Air-sealed Model OP-10-W provides efficient, trouble-free thirst relief where excessive dust, lint, heat or moisture makes ordinary coolers a poor investment.

The *big* share of the water cooler business is *easier* to nail down with America's foremost line . . . OASIS. Rush the coupon for full details.

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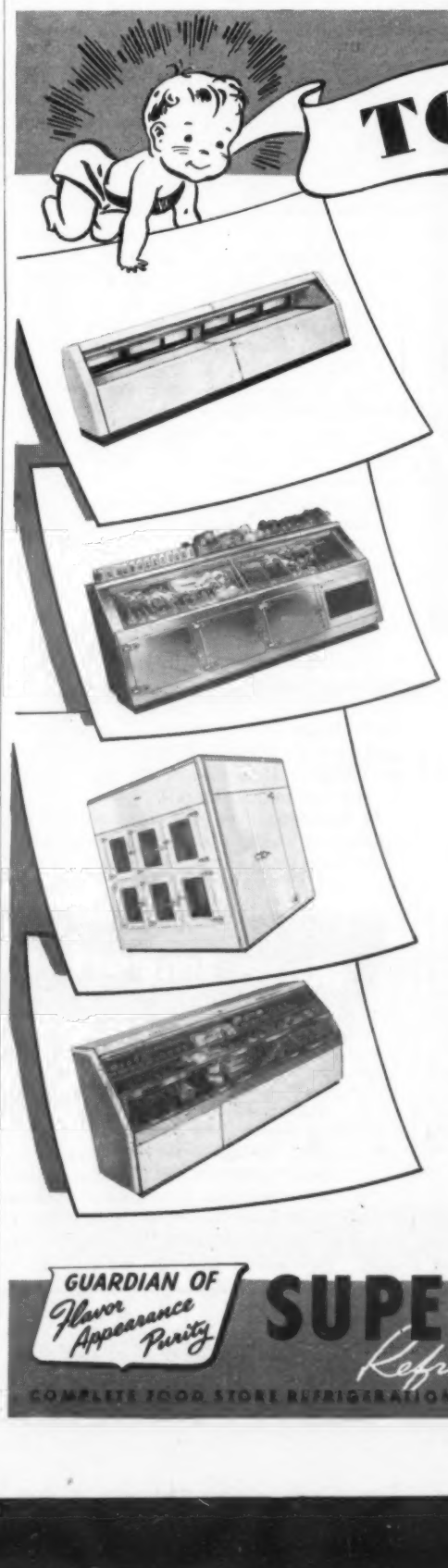

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GUARDIAN OF Flavor Appearance Purity
SUPER-COLD Refrigeration
COMPLETE FOOD STORE REFRIGERATION UNDER ONE GREAT NAME

WORLD TRADE NEWS

India, Pakistan 'Starve' for U. S. Goods, In Dire Need of Refrigeration, Air Conditioning

By Eugene Hesz, International Market Analyst

The two new Indian dominions called India and Pakistan are starving for American consumer goods. This is a fact despite the strong, continued attachment of Indian economy to British trade, an outflow of several centuries of closest cooperation.

It makes a fascinating story to sketch the vast changes which have come to pass in the Indian subcontinent and in Asia as a whole during the last 25 years. At the same time, it is advisable to throw some light on the almost incredible underdevelopment of Indian industry and even agriculture.

For 400 years, the Western powers (England, the Netherlands, Portugal, Spain, and France) have impressed their culture and their power upon the Asiatic nations. To give some examples of the size of the transactions involved:

The investment of the United Kingdom in the harbor cities of China alone had an actual value, only 20 years ago, of more than $5 billion. The British investment in India was so much larger that it is difficult to express it in a round figure.

A careful study of the economies of England and India during the last 200 years reveals the startling fact that the bulk of the capital which England needed and used for the foundation and the financing of her industrial equipment originated to a large part in India. This enormous amount of capital exported from India in the form of colonial products and actual gold came partly back to the colony in the form of cheap cotton goods which could be purchased by the masses at low prices.

The last 25 years have brought not only a decisive change in the political relations of the British Empire units but much more. Almost everyone of the great Asiatic countries has suddenly discovered its individuality and has to a great part undone in 25 years what the Europeans had established in four centuries.

China has abolished exterritoriality and has practically wiped out her foreign indebtedness. The Philippines have, with full American cooperation, gained their independence.

The Netherlands East Indies are at best at this moment a part of the new Netherlands Commonwealth, but a great part of the archipelago does not even recognize this connection any more.

NEW DOMINIONS BORN

August 15, 1947, was the great day in Indian history. The close ties with the British were transformed into a voluntary dominion-like status. The two new countries, India and Pakistan, were born.

A quick comparison with the United States reveals a most surprising difference in population and industrialization. Whereas the U. S. has a population of 147 million on a total area of 3 million square miles, the population of India and Pakistan numbers about 390 million in an area of only one million and a half square miles.

These figures alone would only indicate that the population is much denser than in this country. We have about 50 persons for one square mile; the Indian average is about 250 persons per square mile.

But much more significant and of decisive influence in anticipating export possibilities for American industry are the figures relative to industrialization of the two Indian countries.

In 1944, the total number of persons working in industry in India and Pakistan amounted to only 2,520,000. At the present time, the U. S. has 51,450,000 non-agricultural employes.

We have reasons to assume that the total Indian industrial labor has not increased since 1944. The difference is an expression of the decisive disparity of living standards.

Space does not permit a precise description of the location of Indian and Pakistan industry. But one great factor must be stressed: the industrial equipment of the two states is mainly centered in India, whereas a good part of the agricultural interests are concentrated in Pakistan.

VAST ELECTRICAL POTENTIALITIES

This picture must not be considered permanent, as Pakistan has a wonderful reserve of potential water power for the creation of electricity. This source of energy may be used in three different ways:

It will help to build up a better balanced economy; it may be used as exportable surplus; and it will help Pakistan to install modern electrical appliances.

The products of the air conditioning and refrigeration industries then will come quickly into the limelight, as the need for such equipment is obvious, considering the geographical situation with the resulting terrible climate.

It has been reported, reliably, by American officers and soldiers returning after the war from regions now forming Pakistan, that food became unfit for human consumption within 24 hours with no refrigeration available, and that even ordinary leather equipment of our troops was attacked and destroyed by the local climate within a matter of days.

Of course, increased use of electrical appliances depends on an increase in the number of electric power producing plants.

POLITICS HAS LEFT SCARS

Let us now consider the present state of economic affairs and the developments expected.

The birth of the two nations did not come about without great pangs. The exchange of population between India and Pakistan, which resulted in a fantastic refugee problem, has left deep scars, but the difficulties are being overcome slowly.

The political picture is also one of fermentation, and at present results in splits in the powerful Congress Party. This, however, is not too serious, as the socialists who seem to emerge from the Congress Party are not too radical.

The communists in India are at present small in number, but they will have to be watched closely. Again we have the well-known spectacle of communists worming their way into the leadership of some of the labor unions with a corresponding influence far in excess of their actual numbers.

NEEDS 2 MILLION TONS OF FOOD

The leading problem of the Dominion of India is the need to import about two million tons of food. This will involve a large proportion of India's import capacity, not only in 1949 but most likely also in the years afterward.

It demonstrates the necessity for improving agricultural methods, for improving preservation of existing food, and, before all, the creation of greater sources of power and the increase of steel capacity.

The famous "Bombay Plan" provides remedies for the next five years for some of the main complaints of Indian economy.

Several new power units are already in the construction stage. The coal production amounts at present to 28 million tons and it is hoped to be able to increase this to 40 million tons within the next few years. Compare this with the American production of 631 million tons in 1945.

Two new steel units with a capacity of 500,000 tons each, are also under construction. This may bring steel production from 900,000 tons to 1,900,000, compared to present American production of more than 80,000,000 tons, Russian production of more than 13,000,000 tons, and British production in excess of 13,000,000 tons.

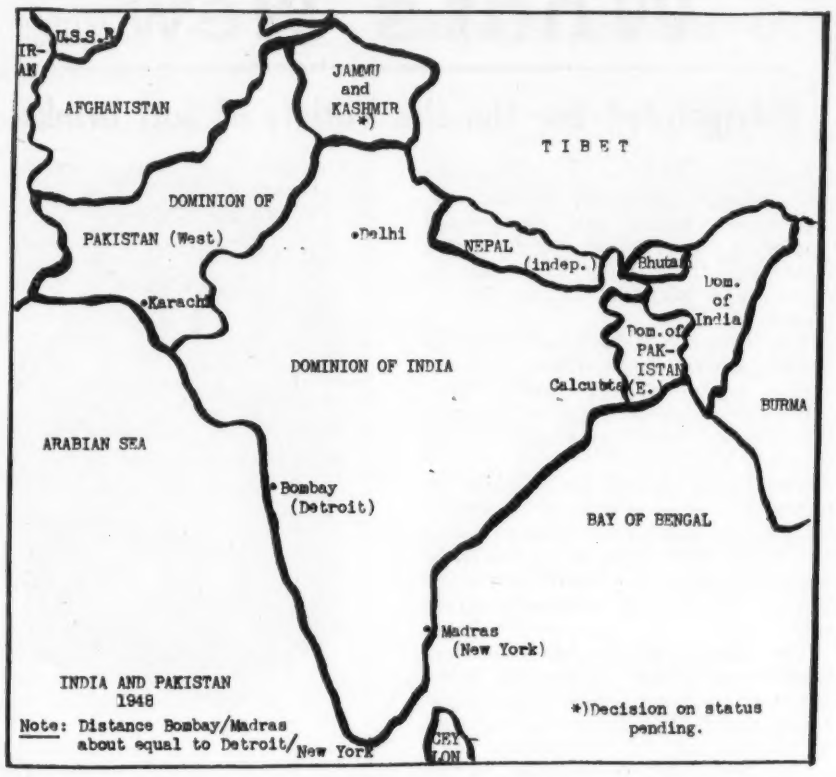
Altogether, the Bombay Plan provides for an increase in the industrial output of India of 30% within five years. New employment to be created for new industrial workers is estimated at 600,000 persons, or an increase of about 20%.

The main increase in Indian industries producing consumer goods will be in the textile field. This is another reason for the air conditioning and refrigeration industry of America to watch developments closely in order to apply its modern methods for better production facilities and improved labor conditions.

Generally speaking, the foreign trade of India and Pakistan is at present in a balance which would indicate that the way is open for a steady, if slow, improvement of Indo-American trade. But, the United Kingdom will dominate Indian commerce for years to come; therefore, our progress will be slow.

Only the enormous demand of the Indian countries for American goods, financed by American dollars, will be the key to be used by the United States of America to open this potentially large market for the American manufacturer.

Bears Watching as Future Market



The new dominions of India and Pakistan before the Kashmir decision in 1948.

Seattle World Mart Opened

SEATTLE—Opening of a World Merchandise Mart located in a five-story building at Second Ave. and Virginia St. here was announced recently. According to present plans, the first floor will be devoted to display rooms for foreign merchandise and the upper floors to offices for firms interested in foreign trade.

SPECIFICATION
United! because it's Smoother

Welded wire refrigerator shelf, typical of hundreds of thousands produced every year by United for domestic refrigerators.

One of the things about United Welded Wire Products you will be quick to notice, is the smoothness of the welds. We are well aware of the importance of such details in producing quality goods which will please your customers and protect them from torn fingers. United has become conscious of the requirements of refrigeration manufacturers through long years of service to the industry. When you need quality welded wire goods, bring your requirements to United, where quality is understood down to the last detail.

UNITED STEEL AND WIRE CO.
150 FONDA ST., BATTLE CREEK, MICH.

SOME TERRITORY NOW AVAILABLE

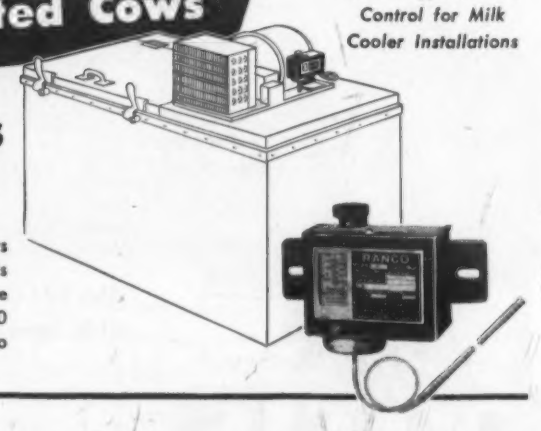
The THESCO complete line includes expandit cases and walkins that grow with the merchant's business.

C. SCHMIDT CO. THESCO CINCINNATI 14, OHIO

More Important Than Contented Cows

Ranco CONTROLS FOR MILK COOLERS

As a leader in refrigeration design development for over 20 years Ranco provides a full range of units to meet the specialized requirements of milk cooler installations. The Ranco type O-1514, for dual temperature installations, and the O-1414 and O-1477, with cut-in range of 30 to 50 degrees and 25 to 45 degrees respectively, are available at your Ranco wholesaler. See him today.



Ranco Type O-1414 Control for Milk Cooler Installations

Ranco Inc. COLUMBUS 1, OHIO
World's Largest Manufacturers of REFRIGERATION CONTROLS

Deepfreeze Readies Freezer Sales Drive--

(Concluded from Page 1, Column 2)

creased emphasis on group demonstration.

Pointing out that demonstration has proved to be the best method of putting the prospect in a buying mood, he said this inexpensive activity effectively ties together all educational material and insures a steady source of prospects. Demonstration "did the job" for the electric refrigerator, washer, automatic ironer, and range, and it will do the job for the home freezer, he declared.

Duggan also emphasized the importance of having a home economist as a staff member to conduct freezing schools.

To illustrate how effective group demonstration can be, he cited these examples of the results accomplished by individual dealers and distributors:

A distributor in Houston, Tex., who employed a full-time home economist, has attracted from 10 to 400 persons to freezing schools, with resulting sales as high as 50% of the audience.

From 100 to 200 visitors attended freezing schools conducted by a South Carolina distributor. A distributor in Dallas, Tex., who now has three full-time home economists, sold 29 freezers as the result of one one-day school and 14 as the result of another.

Sell 50 In 2 Days

In Portland, Ore. 50 freezers were sold after a two-day series of demonstrations in one store. A Seattle dealer drew 308 women to a freezing school. A dealer in San Antonio, Tex., sold 59 freezers in 54 days, with all sales directly traceable to one school.

To help promote increased use of group demonstrations, Deepfreeze has prepared a home freezer school guide which is now available to distributors, Duggan announced. This book contains information necessary to conduct a continuous program of demonstrations, or freezer schools, throughout the year.

During the conference, a model freezing school was staged to show the distributors how such a program should be put on. This demonstration was given by Rhea Shields, Deepfreeze director of home economics, and John Fellmann, central regional sales manager.

Miss Shields wove her presentation around the 10 use values of a Deepfreeze home freezer listed on a poster at the side of the stage. The values were given as:

"1. You shop less often. 2. You buy ahead. 3. You cook and bake ahead. 4. You banish the monotony of leftovers. 5. You are prepared for the unexpected guest. 6. You save endless time and labor by home freezing. 7. You retain the original quality of foods. 8. All foods are always 'in season.' 9. You preserve game and fish. 10. It pays for itself."

Other charts were displayed to call attention to the money and time-saving features of a freezer.

Homemaker Manual

Publication by Deepfreeze of a "Homemaker's Manual" was made known during the model school. This 36-page, illustrated guide for running a home is designed as another device to bring in prospects. "49er" newspaper advertisements and window banners will offer the book free, and it was suggested it be given away at freezing schools.

The need for increased effort on dealer sales training was discussed by Fellmann. During his talk, he read recent reports citing examples of poor freezer displays and sales stories. Among dealer-training material he listed as now available are the four-volume "Deepfreeze Digest of Home Freezing," a manual on conducting dealer meetings, and a new sound slide film called "Frozen Assets," which was then given its first showing.

The film, which runs 27 minutes, tells the story of how "Bob Wakefield" learned to sell Deepfreeze home freezers, "partly because of some smart ideas his sister, Betty, gave him and partly because he had the urge to learn and be a successful retail salesman." "Frozen Assets" is also recommended for prospect showings.

New and standard display materials were presented by R. V. Newbell, advertising and sales promotion manager. Among new items is an 18-piece display consisting of cards which center attention on individual features of the Deepfreeze home freezer. Magnetic merchandising clips permit placing each card next to or near the feature it tells about.

Also new are a lid visualizer to tell the product story and guide the salesman in talking to prospects, and a window or wall banner set. Several other types of signs are available.

Newbell also reviewed the Deepfreeze national advertising program. This includes advertisements in eight trade journals and 13 consumer magazines. Other advertising aids were shown and discussed.

A particularly interesting part of Newbell's presentation concerned showing the distributors exactly how a full-page advertisement which will appear in a national consumer magazine was laid out. In the beginning, the advertisement was completely covered with sections of cardboard. As he commented on the various features an advertisement must have, he exposed the particular section concerned until the whole advertisement was visible.

At other points in the program, Fellmann reviewed the entire Deepfreeze line; Peter R. Lowcher, refrigerator sales specialist, discussed features of the Frostair Duplex refrigerator; and James G. Cominos, vice president of LeVally, Inc., new Deepfreeze advertising agency, read a message prepared by Norman W. LeVally, president of the agency.

Sales Manager Duggan then also reviewed the "49er" campaign booklet, "Bonanza Bound," by means of which distributors can tell dealers the campaign story. This booklet describes the training, advertising, display, and selling materials available.

The booklet outlines this procedure for dealers taking part in the campaign:

Plan a "49er" campaign and have all members of your organization wear "49er" buttons; order adequate Deepfreeze home freezer inventory; hold training meetings for duration of the campaign; advertise Deepfreeze home freezer consistently through local newspapers, billboards, and radio; run "49er" newspaper advertisements; and conduct group demonstrations or freezing schools.

Duggan said special quotas have been assigned distributors for the campaign, with merchandise prizes and plaques to be awarded contest winners. He urged each distributor to conduct his own "49er" drive.

In his talk at the opening of the conference, Smith said real salesmanship must be the order of the day since people are no longer walking into appliance stores unless their need for a product is acute. They feel they can take their time now because they think prices won't go up. But their ability and willingness to buy is as strong as ever, he asserted.

Swift Co. Survey Revealing

Smith then cited the results of a spot survey made last December in an upper middle class section of Portland, Ore., for Swift & Co. to show the "wide-open" market for home freezers.

Of the 203 families covered by the survey, 181, or 89.2%, said they did not own a home freezer. Of these 181 families, 49 said they planned to buy one; 115 did not; and 17 didn't know. Of the 49 families who intended to purchase a freezer, 41 didn't know what brand they would buy. The 49 families didn't know this, Smith added, simply because they were unfamiliar with the various makes.

He said 11,000,000 refrigerators have been sold since the war, with one out of every three wired homes buying one. On the other hand, the home freezer saturation is only 4% nationally, he stressed. He also called attention to the fact that home freezer sales involve no trade-ins, while the trade-in factor in refrigerator sales is rising steadily.

Washer Sales Set Record Despite December's Low

CHICAGO — Despite a year-end drop that cut December factory sales 42.4% below November's factory sales of standard size washers for the year 1948 have set a new record, the American Washer & Ironer Manufacturers Association has reported.

The year's total of 4,317,183 washers sold was 14% over the 3,783,632 sold in 1947 and 113.3% over the 2,023,981 moved in 1946. In 1941, the best pre-war year, the industry sold 1,959,887 washers.

December sales of 183,700 units was down 47.6% from the December, 1947, total.

Frigidaire Reorganizes Personnel In Ice Cream Cabinet Sales Department

DAYTON, Ohio—Changes in the organizational structure of th Ice Cream Cabinet Sales department of Frigidaire Div. of General Motors, together with three new appointments, have been announced by W. F. Switzer, commercial sales manager.

Transferred from the factory's service department to the Ice Cream Cabinet Sales department as southeastern regional sales representative is L. A. Jackson, a veteran with more than 20 years sales and service experience with Frigidaire.

Switzer also announces assignment changes for three other sales representatives: George F. Jenkins, sales representative of the eastern region; John B. Brinkley, sales representative of the central region; and A. E. Meyer, sales representative of the southwestern region. A. G. Foote and R. E. Robertson will continue to handle contacts for the Pacific region.

Two field transfers of ice cream cabinet division managers in the Pittsburgh and Kansas City branches of Frigidaire, were also announced by P. W. Budworth, ice cream cabinet sales manager.

J. A. Hanlon, ice cream cabinet division manager of the Pittsburgh branch sinch 1940, has been transferred to the Kansas City branch as ice cream cabinet and national user sales division manager. He is succeeded in Pittsburgh by J. T. Sheeder, district commercial division manager since 1945. Both Hanlon and Sheeder have been associated with Frigidaire sales since 1926.

Hammond Sells Service Business

DUNEDIN, Fla.—C. E. Purcell has announced that he has purchased the refrigeration service of Al Hammond and will operate it under that name.

Focal Point of Interest at Southern Show

"Americans are still interested in learning better ways of doing things" might well be the title for this picture, taken during the recent Southern Refrigeration and Air Conditioning Educational Conference and Exhibit. E. C. Williams (back to camera), head of Airserco Mfg. Co., which specializes in developing and producing devices to improve and quicken the servicing of refrigeration equipment, discusses some of them with a group of interested visitors to the conference.

Armstrong Named Bendix Field Sales Manager

SOUTH BEND, Ind.—Promotion of Joseph L. Armstrong to field sales manager of Bendix Home Appliances, Inc. here and the resignation of four officials were announced recently.

Resignations were tendered by Lynn Eaton, director of districts; John H. Kelley, director of sales training; Malcolm R. Rodger, midwest sales manager; and Frank L. Brunckhorst, director of public relations.

In his new position, Armstrong will direct Bendix field sales representatives and overseas operations.

6-Month Excise Receipts Pass 1947 Figure by $11,495,562

WASHINGTON, D. C.—Collection of manufacturers' excise tax on mechanical refrigerators and air conditioners in the six months period from July 1 to Dec. 31, 1948 totaled $39,473,935.79, statistics released by the Bureau of Internal Revenue reported recently.

This figure was $11,495,562.73 higher than receipts for the same period in 1947.

December receipts amounted to $6,575,370.50, and increase of $2,037,814.27 over the same month last year.

BOOKS... You Will Enjoy Reading

NO OTHER STAR

By Jane Williams

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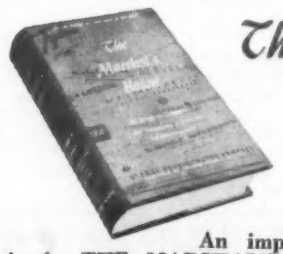
THE MYSTERIES OF BLAIR HOUSE

by Roy Eastman

For the died-in-the-clue mystery fan at last comes a spine-tingling thrill with the first really new plot twist in years. Done in a style and tradition reminiscent of that master chiller, A. Conan Doyle, THE MYSTERIES OF BLAIR HOUSE so impressed its publishers that costs were ignored in producing this memorable first edition. In two colors, beautifully bound, and with "mood illustrations" by William A. Bostick, this is an ideal gift and a prideworthy library addition. $2.75



The Marshal's Baton

by George F. Taubeneck

An important and significant book, THE MARSHAL'S BATON is the "advanced course" in salesmanship, written by the author of the deservedly popular ONE FOOT IN THE DOOR. Here, for the first time, is the distilled knowledge and experience of the country's most brilliant sales executives who saw the need of codifying their sales wisdom for the benefit of younger men. It is a brilliant new source of power, and a unique and highly useful contribution to the science of creative sales management. $5.00

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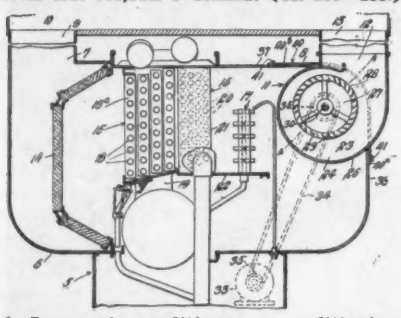
PATENTS

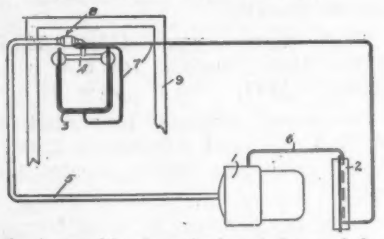
Week of November 30 (Continued)

2,455,198. AIR CONDITIONING. Walter M. Simpson, Evansville, Ind., assignor to Servel, Inc., New York, N. Y., a corporation of Delaware. Application Feb. 18, 1947, Serial No. 729,344. 6 Claims. (Cl. 230—133.)



1. In an air conditioner, a conditioning chamber having an opening therein, an air directing casing in the conditioning chamber having an outlet duct projecting through the opening and a laterally extending cover plate overlying the conditioning chamber at the sides of the opening, said conditioning chamber and cover plate being so constructed and arranged as to mount said air directing casing in a plurality of positions in the conditioning chamber so that its outlet duct may project through the opening in different directions, common means for attaching the cover plate to the conditioning chamber in any of its plurality of positions, and means to deliver air from said conditioning chamber through said air directing casing.

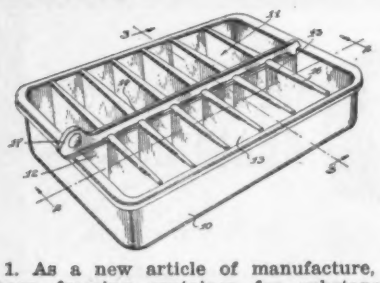
2,455,298. COMBINATION METERING DEVICE AND HEAT EXCHANGER FOR REFRIGERATORS. Martin T. Cahenzli, Jr., Chicago, Ill., assignor to the Harry Alter Co., Chicago, Ill., a corporation of Illinois. Application Nov. 10, 1944, Serial No. 562,881. 7 Claims. (Cl. 62—127.)



1. A combined metering tube and heat exchanger for a refrigerating system, including a metering tube in the form of a main coil each convention of which is made up of a series of convolutions of the metering tube, and a housing containing said coil and arranged for connection in the suction line of a refrigerating system, said housing having an opening therein through which both ends of said tube extend.

Week of December 7

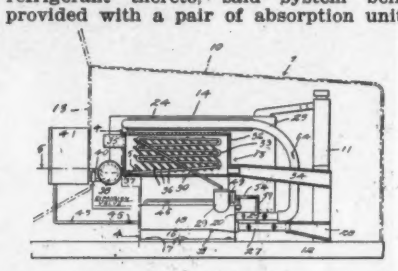
2,455,366. ICE TRAY AND SLIP SURFACE FLEXIBLE GRID. Harley Y. Jennings, Clio, Mich., assignor to Copeman Laboratories Co., Flint, Mich., a corporation of Michigan.



1. As a new article of manufacture, a sharp freezing container for substances to be frozen, and partitions for dividing the container into a plurality of ice cube molds, said partitions being formed of resilient easily distortable rubber which has incorporated therein a substance of such a nature that it will migrate to the surfaces of said partitions to form water-repellent, slippable surfaces for contact with the frozen substance in said container.

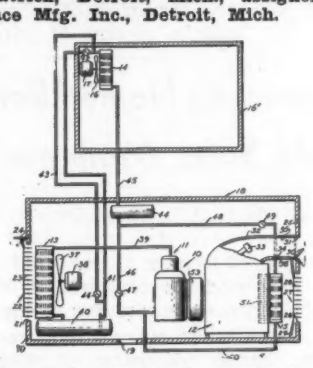
2,455,401. REFRIGERATING UNIT FOR VEHICLES. Philip R. Brause, Casper, Wyo.

1. In a refrigerating system for motor vehicles, a refrigerator box adapted to be mounted in a portion of the vehicle to be cooled and containing a cooling coil, a reservoir adapted to contain a condensed refrigerant and connected to one end of said cooling coil for supplying the refrigerant thereto, said system being provided with a pair of absorption units,



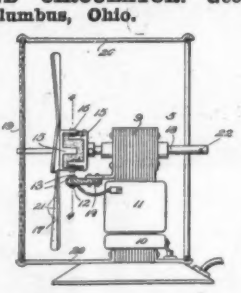
automatically controlled means for alternately heating and cooling said absorption units, condensers disposed above each of the absorption units and in fluid communication therewith, said condensers being connected to said reservoir for supplying the condensed refrigerant thereto, and conduits, provided with check valves, connecting the cooling coil of the refrigerator box to said absorption units for supplying the vaporized refrigerant to the absorption unit being cooled and in which a low pressure area of the system exists, said absorption units being intermittently heated for vaporizing the condensed refrigerant therein for causing the refrigerant to be forced therefrom to the condenser which is connected thereto.

2,455,421. CONTROL MEANS FOR AIR CONDITIONING APPARATUS. Henry O. Kirkpatrick, Detroit, Mich., assignor to Advance Mfg. Inc., Detroit, Mich.



1. An electric control circuit for air conditioning apparatus having a refrigerant compressor, a condenser for the compressed refrigerant, a heat exchange unit having a fluid connection with the low pressure side of the compressor, an expansion valve in the fluid connection between the condenser and evaporator, means for forcing air through the condenser to condense the refrigerant passing therethrough, said means including a fan and an electric motor for operating the fan, a normally closed valve controlled bypass extending around the expansion valve, said control circuit comprising a switch for the motor, a solenoid operatively connected to the bypass valve, a master switch operable to energize the solenoid to open the bypass valve, and means for opening the fan motor switch in response to operation of the master switch to open the bypass valve.

2,455,738. ELECTROSTATIC AIR FILTER AND CIRCULATOR. George W. Crise, Columbus, Ohio.



1. An electrostatic air filter and fan comprising: a synchronous alternating current motor including a stator having a frame, an armature, an armature shaft, a primary low-voltage winding on the stator, a secondary high-voltage winding disposed on the stator in inductive relationship to the low-voltage winding, and a current-rectifying commutator fixed to rotate with the armature shaft, a bladed fan rotatable with said commutator, a metallic fan guard carried by the stator frame, the periphery of said commutator being formed with electrically spaced bars carrying radially extending electrodes, alternate bars of said commutator being electrically joined with said armature shaft and said fan, and spaced sets of stationary electrodes joined with the secondary winding and insulated from said stator frame, said stationary electrodes being disposed in close physical relation to but without actual contact with the electrodes of said commutator bars.

(To Be Continued)

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MY HOME TOWN is Detroit. I like to live here and have recently returned because it's a rich territory and I know it well. For a manufacturer of refrigeration products this knowledge can be of mutual benefit. Can offer 20 years experience in sales and engineering of refrigeration products with national coverage. Record exceptional on proven ability and performance. Will send complete details on background and experience or will be glad to arrange personal interview. If you have a place for a top sales engineer in the Detroit area. . . . Write BOX 3048, Air Conditioning & Refrigeration News.

EXPERIENCED REFRIGERATION man on open and sealed units, some commercial, washing machines fully automatic and others. Many years of experience. Also experienced on sales on these items. Would like to get a position as a salesman or serviceman or both with a factory of this kind. Can give good reference. Write to BOX 3090, Air Conditioning & Refrigeration News.

SERVICEMAN WITH twenty years experience in refrigeration service and installation field. Capable of handling any service or installation problem. Also capable of handling service department. Would consider any part of country. Would like to locate smaller city. Answer BOX 3101, Air Conditioning & Refrigeration News.

ENGINEER—COLLEGE graduate with industrial training and diversified experience all phases "Freon" air conditioning and refrigeration engineering available for California district office or distributor. Presently associated prominent eastern concern, but family ties necessitate my transfer. Salary requirement $5,000 to $6,000 depending on nature of position. BOX 3103, Air Conditioning & Refrigeration News.

SERVICE MANAGER with twenty years experience in commercial and domestic refrigeration work, desires a change. At present employed as service manager of a distributor of a major line. Knows all details of service procedure and operation and can handle your correspondence with courtesy and efficiency. I can operate your department at a profit to you. Married, in excellent health, consider any locality. BOX 3107, Air Conditioning & Refrigeration News.

POSITIONS AVAILABLE

AIR CONDITIONING engineer. We have opening for experienced engineer who is capable of designing and estimating air conditioning jobs up to 50 tons. This is a permanent position offering attractive salary and opportunity for rapid advancement. Man selected will receive 6 weeks refresher course in air conditioning at Carrier factory in Syracuse, N. Y., with all expenses paid. For prompt interview, write giving resume of past experience. JAMES AND ROACH, INC., Carrier Distributors, 282 East Milwaukee Ave., Detroit 2, Michigan.

MANUFACTURERS' REPRESENTATIVES: wanted by manufacturer of replacement refrigeration parts. These parts are unique in design, having features desired by the serviceman, priced to sell. If you contact parts jobbers write for particulars. LINCOLN APPLIANCE CO., 1827 So. Bronson, Los Angeles 6, California.

PACKAGE GOODS sales manager for well established York distributor in Chattanooga, Tennessee. Position includes handling dealers and direct salesmen for frozen food cabinets, ice cubers, 3 and 5 H.P. air conditioning units, and small refrigeration systems. Past experience necessary. SOUTHERN BLOW PIPE & ROOFING COMPANY, P. O. Box 3005, Chattanooga 4, Tennessee.

WANTED ENGINEER. Old and well established distributor contractor handling nationally known and well advertised equipment, within an hour from New York City, wants a thoroughly experienced air conditioning and refrigeration sales engineer. Must supervise sales force and be capable of handling all sizes of air conditioning and refrigeration up to 50 tons. Salary and override on volume business. Permanent position to man of proven ability. Opportunity to invest in business. Applications will not be considered unless showing fifteen to twenty years field experience. BOX 3087, Air Conditioning & Refrigeration News.

SALES ENGINEER: 30 to 35, by large manufacturer of commercial condensing units, packaged and central type air conditioning units, to establish dealers in Southern California. Permanent. Salary, commission and traveling expenses. M. E. graduate or equal with application and dealer contact experience. Must be permanent resident, know territory and own car. State all qualifications first letter. BOX 3100, Air Conditioning & Refrigeration News.

OLD ESTABLISHED northwest manufacturer of self-contained refrigerating devices, employing hermetic fractional horsepower compressors, desires services of refrigeration engineer for designing, laboratory and assisting in production department. Give full information in first letter. BOX 3102, Air Conditioning & Refrigeration News.

FACTORY REPRESENTATIVE to handle frosted food cabinets, refrigerated produce cases, and dairy cases, etc., by manufacturer with good mercantile rating. Territories open in midwest. Reply BOX 3105, Air Conditioning & Refrigeration News.

HOME FREEZER specialist. Well-established large national manufacturer of household appliances has opening in the home freezer department for experienced man capable of conducting sales training meetings and sales promotion. Only those with successful record can be considered. Platform background necessary. Must be familiar with complete story on frozen foods. Kindly furnish complete details in first letter including recent photograph. BOX 3106, Air Conditioning & Refrigeration News.

EQUIPMENT FOR SALE

SELLING OUT way below our wholesale costs the latest type new six foot dry type beverage coolers. For a good buy, write ACME REFRIGERATION CO., 634 Dean St., Brooklyn, New York.

NIAGARA DUO-PASS evaporative condensers for "Freon" gas. 1—Model 2520 approx. over-all dimensions, 79" height, 36" width, 75" length. Rating tons "Freon" 20 tons at 105° Fahrenheit based on 76° wet bulb and 40° suction temperature. Today's cost $1,592.00. Our selling price $900.00. 1—Model 25x150 approx. over-all dimensions, 79" height, 35" width, 70" length. Rating tons "Freon" 14.5 tons at 105° Fahrenheit based on 76° wet bulb and 40° suction temperature. Today's cost $1,534.00. Our selling price $800.00. Niagara descriptive literature can be mailed upon receipt of your inquiry. Above condensers are new and in original cratings. ALLIED REFRIGERATION CORP., 1635 East 55th Street, Cleveland, Ohio.

29—#F1-4HB TECUMSEH condensing units. BM590-A30 less controls with motors—these units are new and in original crates. $145.00 ea. 5,000 feet ¾" Bundy tubing hard heavy wall $.06 per ft. All F.O.B. St. Louis. AMP CORPORATION, 320 No. Leonard St., St. Louis 3, Mo.

SEALED UNITS rebuilt and exchanged. Prompt service on Coldspot (sealed & semi-sealed). Chieftain, Gale, Tecumseh, Norge and many others. One year guarantee. Write for price list and shipping instructions. BRIGHTON, 3906 Joy Rd., Detroit 6, Michigan.

SPECIAL CLOSE-OUT on brand new freezer plates, coils, and units. Yoder plates—19" x 31" @ $3.75; 21" x 72" @ $7.00. Dole plates—22½" x 33" @ $4.25; 24" x 79" @ $8.00; 22" x 61" @ $6.00; 22" x 72" @ $7.00. (All plates have ½" male or female end connections.) Bush finned coils 76" x 16" x 2¼" 6 tube single row @ $9.00. Chrysler Airtemp air cooled units—¼ H.P. @ $54; ⅓ H.P. @ $60; ¾ H.P. @ $102; 1½ H.P. @ $168. Send deposits to GENERAL REFRIGERATORS CORP., 678 Broadway, New York 12, N. Y.

SURPLUS JAMISON doors: 6" thick at 50% present distributor cost, in original crates. Complete with hardware. 3—#4D—3' x 6'. 5—#5D—3'6" x 6'6". 2—#11D—4' x 6'6". 2—#11-H—4' x 6'6". Metal clad. Immediate shipment. Write or wire D. HITCHCOCK, 908 Andres Ave., Coral Gables, Fla.

SUBJECT TO prior sale: Hermetic Chieftain units—⅛ H. P., $44.50; ⅙ H. P., $48.50. Other well known hermetics: ⅙ H. P., fan cooled, $52.50; ¼ H. P., fan cooled, light duty, $57.50; ¼ H. P., fan cooled, heavy duty, $59.50; ⅓ H. P., fan cooled, $69.50. Open units, standard makes: ¼ H. P., $54.50; ⅓ H. P., $64.50; ½ H. P., $84.50. Above prices quoted on lots of six. All open units are 60 cycle, single phase. All above units new, carrying factory warranty. Write for unit list. Penn type 260 Apol low pressure control, $4.25. Penn type 262 Apol high pressure control, $4.25. Minneapolis-Honeywell dual pressure control, $4.50. Detroit Lubricator low pressure control, $4.25. G. E. blower fan motor with 10" fan, $4.50. Superior heat exchanger, 13" over-all, ⅝" x ⅝", $4.25. Mueller heat exchanger, 14½" over-all, ⅝" x ⅝", $5.00. Kramer Trenton panel blower complete, ½ ton, $30.00. Superior master drier ¼" flare x 1¼" x 5½", 75¢. U. S. "Freon" gauge, 4½" face, 30" vac., 150# or 300#, with corresponding temp. scale with red warning hand and mounting holes, $4.50. Scientific Instrument Co. dial thermometer, 4½" face, minus 40 to plus 120, 5 ft. tube, $4.50. 1 set U. S. "Freon" gauge, 2½" face, 100# compound and 300# pressure, temp. scale, recal, and mounting holes, $3.50. Ranco type KW-412 cold control complete, $4.00. American Injector oil separator, ⅛ ton, $3.50. Cold plates 1—30" x 55", 2—30" x 64", 3 to a set, $35.00. 6—5 lb. cans Davison refrigeration silica gel, $6.00. 1—5 lb. can Davison refrigeration silica gel, $1.10. Crouse-Hinds vapor proof refrigerator light, with guard, $2.50. WALTER W. STARR, 1207 George Street, Chicago 13, Illinois.

1—YORK, AMMONIA, plate type, sweet water cooler, Model SWC-1 with York pilot operated suction pressure regulator, both items new and in original crate. Will cool 30 GPM water from 38° to 34° with 22° refrigerant temperature. $1,000.00 F.O.B. Macon. L. M. SOLOMON, JR., R.F.D. #1, Macon, Georgia.

SAVE 10 TO 50%. Act now! 100,000 ½" sweat couplings 1⅜" long @ .04. 45,000 ½" forged brass sweat elbows @ .07. 11,800 ⅜" sweat couplings @ .04. 800 accumulators ⅜" to ⅜" sweat ends @ .20. 900 ½" to ⅜" sweat ends. Wolverine @ .20. 2,000 Alco thermovalve T-102 ¼" flare inlet to ⅜" flare outlet setting 5° to 0°. Maximum pressure @ 1.10. 900 Automatic Products #204 expansion valve ¼ ton "Freon," ½ ton methyl and sulphur. ¼" SAE male inlet to ¼" IPT outlet @ 2.50. 600 Marsh pressure gauges gradation 0-300 recalibration setting—2½" dia. ¼" pipe @ .80. 2,500 Primer Products #21790 liquid receivers @ .80. Write for list of $500,000 refrigeration surplus. All materials are new and shipped F.O.B. No order is too small. TRACO INDUSTRIAL CORPORATION, 455 Eleventh Avenue, New York 18, N. Y.

WATER COOLERS, Kelvinator; 10 gallons, $149.00 each. Beam scales, $22.50; ten or more, $19.50. Units, new: 10 H.P., $595.00; 3 H.P., $295.00; 2 H.P., $250.00; ¾ H.P., Servel, $149.50; 1½ H.P., $195.00; ¼ H. P., Servel, $75.00; ⅓ H.P., $95.00; ⅓ H.P., J & H motors, $25.00. F.O.B. GENERAL REFRIGERATOR CO., 856 No. Broad St., Phila., Pa. ST 7-2240 and 2241.

FRANCHISES WANTED

WANT ANOTHER refrigeration line to sell replacing one given up; continuing Brunner Mfg. Co. that I have represented for 15 years on both refrigeration compressors and air compressors in western Pa., part of W. Va., Ohio, and Michigan. Have best jobbing accounts and sold with two lines practically all jobbers. Have assistant working for me. Not interested except first class line and manufacturer. Must have volume prospects and money maker. S. W. HANNA, 1605 Riverside Dr., Lakewood, Ohio.

BUSINESS OPPORTUNITIES

FOR SALE at inventory—retail appliance, electrical and service business in county seat town, southwest Missouri. No service competition, franchised for major appliances, leading line. M. H. Hembree, STOCKTON EQUIPMENT CO., Stockton, Missouri.

MIAMI, FLORIDA—a leading refrigeration, air conditioning, television, and appliance sales and service establishment—in same Miami location ten years. Grossed $150,000 and netted $20,000 last year. Will sell for $7,500 to cover truck, equipment, and improvements plus merchandise inventory at cost—about $8,000. BOX 2992, Air Conditioning & Refrigeration News.

MOST COMPLETE shop in San Joaquin Valley. Complete low pressure, air conditioning and heating facilities. 1,000 sq. ft. warehouse, 3,200 ft. new office, display and workshop building, 4,000 ft. steel fenced yard. Leading franchise two counties. House and cabin. 3 trucks, portable welder, tools and equipment. All $45,000.00. BOX 3096, Air Conditioning & Refrigeration News.

WEST COAST'S largest electrical manufacturing concern for sale by owner. Location Los Angeles. Sales nation wide and export thru established franchise dealers. Substantial profits. $250,000 includes plant complete with inventory, machinery, bldgs. $125,000 down. Balance 10 years. BOX 3097, Air Conditioning & Refrigeration News.

FURNITURE AND appliance store for sale. Well established and best located store in small town. Leading lines of both furniture and appliances with practically no competition in furniture. Building 25 x 100, two floors, freight elevator. Doing over $100,000. Warehouse and garage lease $125.00 per month. Clean inventory. Prefer to sell business for about $45,000, and lease building, or will sell both for about $75,000. Write BOX 3104, Air Conditioning & Refrigeration News.

AIR FILTERS
Replacement Type
10" x 10" x 2"
New—Original Factory Cartons
10¢ Each—Quantity Purchases
Sample on Request

HAND TUBE BENDERS
400—Size #7

HELIUM OR HYDROGEN VALVES—BRASS
SURPLUS TRADING CO., INC.
128 N. 3rd St., Philadelphia 6, Pa.

SERVICEMAN WANTED

By Midwestern commercial refrigerator manufacturer for local service work. He should be experienced and also have the interest and ability to assist at times in laboratory and development work. Good living conditions in a small city. Write letter with complete details of education and experience. Address

Box 3099, Air Conditioning & Refrigeration News

Admiral Marks $8 Million For Advertising, Promotion

CHICAGO—An $8,000,000 advertising and promotional budget for 1949 is planned by Admiral Corp.

Seymour Mintz, director of advertising, stated that the tentative breakdown of Admiral's new campaign shows $6,000,000 budgeted for cooperative newspaper advertising, $1,250,000 for national publications, and $750,000 for television.

With the exception of the television expenditure the budget follows the pattern set in 1948 when nearly $5,000,000 was spent advertising Admiral products.

Much credit for Admiral's increase in sales from $48,000,000 in 1947 to $66,500,000 in 1948 was given to Admiral's advertising efforts. Sales of more than $100,000,000 are anticipated for 1949.

The lion's share of the budget, especially for the first quarter, will be devoted to the television division as Admiral estimates that 60% of its 1949 volume will come from the sale of 400,000 television sets and combinations.

No advertisements larger than a quarter-page are scheduled for insertion the first quarter in national publications on Admiral's Dual-Temp electric refrigerators.

Insertions will be made in the *Saturday Evening Post, Colliers, Good Housekeeping, Better Homes & Gardens, Ladies Home Journal, McCall's, Country Gentleman, Farm Journal, Capper's Farmer* and the *Progressive Farmer.*

Admiral, in 1949, intends to schedule all of its magazine, newspaper, and cooperative advertising on a quarterly basis to enable the company to more efficiently keep abreast of current conditions that affect the sale of Admiral merchandise.

Attending Hajoca's Philadelphia Meeting

Present at the Hajoca Corp. sales meeting held in Philadelphia were in the front row from left to right: C. C. Lowry, vice president-sales; E. W. Breese, sales manager-industrial division; H. E. Tippett, branch house supervisor; V. A. Hazzard, purchasing agent; Benjamin Cadbury, secretary; S. M. Stroh, sales manager-plumbing and heating division; C. J. Muend, manager, Hajoca Brass Works; W. A. Brecht, president; Sylvia Iannone, secretary to Brecht; A. A. Sadley, vice president; John T. Brown, Jr., treasurer; J. W. St. Clair, vice president-finance; E. C. Hoeflich, advertising manager; and R. B. Davis, manager, refrigeration division.

Emerson Says Price Dip, Wage Rise Cut Net Profit

ST. LOUIS—Price reductions and wage increases were blamed for a sharp decline in net profit earned by Emerson Electric Co. for the quarter ending Dec. 31, 1948 as compared with the same quarter in 1947.

Though sales in the 1948 quarter totalling $6,837,785 were some $400,000 greater than in the 1947 period, net profit, after charges and taxes, was only $257,879 as compared with $472,091 for the 1947 quarter, the company reported.

Emerson earned 52 cents per common share last year as compared to 99 cents in the 1947 quarter.

The company declared that there has been a decline in volume of motors produced for washing machines, oil burners, and certain other appliances that started in November.

Unfilled orders as of Jan. 25 were reported to total approximately $45,000,000.

Detroit School Offers 'Minor' Course Program

DETROIT—The Detroit Air Conditioning Institute has annnounced that its curriculum has been revised to permit students to either take the complete course or qualify for minor objectives as desired.

George H. Clark, director, stated that the complete curriculum is now broken down into 12 different subjects.

Different combinations of the 12 subjects, ranging from two to 10, are required to qualify for minor objectives. These objectives were listed as sheet metal layout, heating, ventilating, refrigeration, heat pump engineering, and air conditioning.

Local Conferences Replace Single General Meetings

PHILADELPHIA — Hajoca Corp., which operates wholesale supply houses throughout the country handling refrigeration, plumbing, heating, and industrial supplies, abandoned its usual single general meeting for branch office sales and management personnel in favor of four concentrated two-day regional sales meetings of supervisors, branch managers, and salesmen.

These meetings were held throughout January in Allentown, Pa.; Philadelphia; Richmond, Va.; and Jacksonville, Fla.

Managers and key operating personnel of all branches will meet in Philadelphia Feb. 25-26 for a discussion relating to purely operating problems.

SMALL SESSIONS DRAW INTEREST

More interest was developed in the smaller meetings, declares C. C. Lowry, vice president-general sales, who arranged the schedule. It was found that more personalized attention could be given to sectional and individual branch problems.

Furthermore, Lowry pointed out, instead of having to wait until the latter part of February for inventories to be taken and books balanced before holding a general company meeting, it is possible—through regional meetings—to start right in "pitching early" in the year by separating sales from the functional ends of the business.

The meetings were streamlined for fast action, with Hajoca President W. A. Brecht opening with a statement of the company's 1949 objectives, followed by presentations by the division managers, with R. B. Davis presenting the picture for the refrigeration division.

E. C. Hoeflich, advertising manager, then showed graphically how the Hajoca advertising program was planned to give each division the publication and direct mail advertising support it needed. Hoeflich explained that the 1949 advertising budget, largest in the company's history, will provide a considerable amount for allocation to each of Hajoca's 31 branches.

Traveling with the "Hajoca Cavalcade of Selling," in addition to those already mentioned, were W. R. Dodge, manager, engineering division; C. J. Muend, manager, Hajoca brass works; and D. W. Hallman, manager, Hajoca iron foundry.

Chattanooga Plans 5-Day Appliance Show For Electrical Week from April 4 to 8

CHATTANOOGA, Tenn.—A five-day electrical appliance show will be the main event of "Electrical Week" to be staged here from April 4 through 8 by the Electric Power Board of Chattanooga and the Electric League of Chattanooga.

The show will consist of exhibits of appliances made by manufacturers whose distributor, branch, dealer, or representative is a member of the league, according to Bert Osborne, general chairman of "Electrical Week" and sales promotion manager of the utility.

Osborne said that the show has been set up on a distributor basis because of the limited space in the main hall of Memorial Auditorium and the desire to eliminate duplication of displays. Only 79 exhibit spaces are available.

The general theme of "Electrical Week," he declared, will be "Live Electrically in the Electrical Center of the South."

Other features of the week will include a special electrical edition of the two local newspapers which are expected to run between 75 and 100 pages each, the annual banquet of the league, and, possibly, the annual meeting of the Tennessee Valley Public Power Association on April 7 and 8.

Four objectives of the promotion, which is an annual event here, were cited by Osborne as:

"1. To produce the highest possible degree of interest in electricity, electrical appliances and equipment, and electrical living in the public mind throughout the period.

"2. To provide the public an opportunity to see and learn all newest ways of living electrically.

"3. To provide electrical appliance and equipment manufacturers an opportunity to present their latest and newest products to the most people in the shortest time.

"4. To provide a business generating vehicle for our dealers."

Admission to the appliance show, which will be staged daily from 1 to 5 p.m. and 7 to 9:30 p.m., will be by free tickets distributed by the utility and league members.

A heavy program of promotion for the show is being planned.

Above is a scene at the banquet held by the Typhoon Air Conditioning Co. in celebration of its fortieth anniversary.

Review of Air Conditioning and Preview Of '49 Plans Mark Typhoon Anniversary

BROOKLYN—A banquet celebrating its 40th business anniversary and the culmination of a sales and sales training program during which a new 10-ton packaged unit had been introduced, was held here recently by Typhoon Air Conditioning Co., Inc., for members of the company and dealers and suppliers on the eastern seaboard.

James F. Dailey, president, who with Edward Garfield, treasurer, has been associated with Typhoon for the past 35 years, reviewed the various stages of the growth of the firm since its founding in 1909.

Dailey recalled the first fan ventilating system which Typhoon pioneered for the motion picture industry back in the days of the nickelodeon. He described the progress through the ice-cooling phase, the water-cooling systems, the adoption of central plant systems, and finally the most modern development—the self-contained, package unit, in the production of which Typhoon is now specializing exclusively.

Don V. Petrone, sales manager, pointed out that with the introduction of the new 10-ton unit, Typhoon is now featuring a comprehensive line of packaged air conditioners, 1½ to 10 tons in size. He stated that 1949 will see the largest advertising campaign in Typhoon's history, and declared that a full-fledged program of dealer sales aids will support the national campaign.

Douglas Fraser, export manager, pointed out that Typhoon's operations have now branched out to many countries throughout the world.

In a special ceremony, a gold watch was presented to Edward Beck, assistant factory superintendent, who has been in Typhoon's employ throughout the 40 years of its existence.

Graduation diplomas were awarded to attending dealers and their salesmen who had completed a concentrated training course conducted by Typhoon engineers.

Electromaster To Pay Dividend

MOUNT CLEMENS, Mich.—R. B. Marshall, president of Electromaster Inc., reports that the board of directors at their meeting Feb. 10 declared a dividend on Electromaster common stock of $.053125 per share, payable Feb. 25, to shareholders of record Feb. 18.

It was also determined that the closing date of the sale of assets of Electromaster Inc. to Philco Corp. would be Feb. 18.

TRUCK REFRIGERATION SALESMEN

For hydraulically-powered and controlled truck refrigeration. One with truck refrigeration experience and following with fleet account and refrigeration accounts desired.

HYDRO-AIRE CORPORATION
Waukesha, Wisconsin

Rockmont Envelope Installs 50-Ton System In New Plant

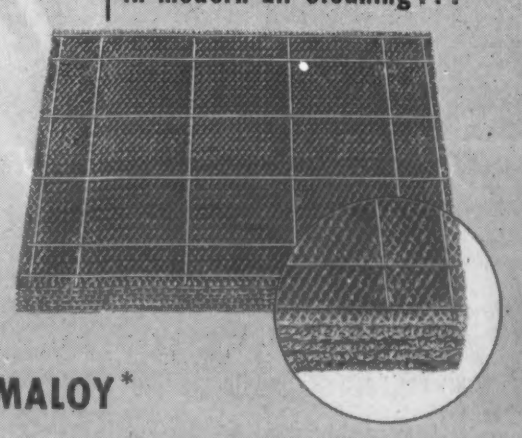
DENVER—A 50-ton cooling system, which will keep 26,000 ft. of plant space at 80° F. the year around, is an outstanding feature of the new Rockmont Envelope Co. building here.

Air conditioning is supplied for the entire plant operating space, executive office, employes' cafeteria, and restrooms, according to Carl Tucker, president of the firm.

The air conditioning system was designed so that ductwork runs along over rows of printing presses, adhesive-applying machines, and folders, so that maximum cooling is provided where needed most.

Announcing

a great new RP achievement in modern air cleaning...



NEW RP ALŪMALOY*

Self-Seal* AIR FILTER

* Self-Seal edge packs close, prevents by-passing unfiltered air.

This new R-P Air Filter combines for the first time the famous "Self-Seal" features with the unique depth-filtration, dirt-stopping qualities of R-P ALUMALOY (Aluminum foil) filter media. The efficient "air scrubbing" multiple-layered baffle pattern with its thousands of adhesive dirt-catching surfaces is free of the usual integral frame. Made slightly oversize it fits snugly on all sides, providing filtering efficiency to the extreme edges and preventing by-passing of unfiltered air by "sealing" all edges. This means added dust-holding capacity and cleaner air for modern forced air units, air conditioning and ventilating applications. Get the whole story on the "World's finest air filter," new R-P ALUMALOY Self-Seal. It offers you TOP benefits in better, longer-lasting, rechargeable air filters — for more effective, more economical air cleaning.

Write today for new Techni-Data Sheet.

*Trademark registered

MEMBER INDOOR COMFORT

RP RESEARCH PRODUCTS CORPORATION
DEPT. AN, MADISON 10, WISCONSIN

RP FILTERS for FINER LIVING | CHOSEN AS STANDARD EQUIPMENT BY LEADING MANUFACTURERS

New Tyler Meat, Dairy Case

Tyler 'Model S3D8' 8-ft. continuous-type meat and dairy display case.

Shows New Models--

(Concluded from Page 1, Column 2)

infiltration, and heat loss," according to the manufacturer.

All cases are of welded steel, have Tyler coiling, and are lined with Tyler certified insulation. All are equipped with a cart bumper rail.

The open-type cases also have the exclusive Tyler automatic built-in defrost system. In addition they feature extruded aluminum and plastic price card moldings, and a porcelain false bottom inclined to provide a display shelf for pre-packaged fresh and cold meats so that platters are unnecessary.

The floodlight display case measures 50½ in. high and 41 in. deep including cart bumper rail. One inch is added to the 10 and 12-ft. lengths for each outside end-glass or solid end.

The open meat and dairy cases measure 56½ in. high and 35⅜ in. deep. When the case is to be used for dairy products, wider main display shelves are used and a mezzanine shelf is employed. The latter is equipped with a new-type bracket that permits the shelf to be folded flat against the rear liner or removed if high-stacked, bulk display is desired.

The three-shelf case contains two large refrigerated shelf areas for meat and dairy products plus the top shelf for unrefrigerated related items. This case measures 54½ in. high, without the upper mirror, and 41½ in. deep.

An open vegetable refrigerator is expected to be added to the line in the near future, according to company officials.

Tesco Distributors 'Goes Hollywood' for Opening

NEWARK, N. J.—A gala "Hollywood style" opening of its new headquarters at 78 Boston St. here is planned March 1 by Tesco Distributors, wholesaler of refrigeration and air conditioning supplies.

Following the big opening party, taking place from 5 to 9 p.m. with entertainment, refreshments, and souvenirs, Ted Yecies will hold a meeting with representatives of manufactures to describe some new operating and sales promotion methods that will be put into effect this year.

The new headquarters, with 20,000 sq. ft. of floor space and large parking facilities, is distinguished by air conditioned sales and meeting rooms, display rooms available to the trade, elevator service to all floors, and receiving and shipping platforms which are completely enclosed.

Principals in the company are Ted Yecies, partner, in charge of sales promotion; Sid Yecies, in charge of credits and collections; Jay Levins, in charge of sales; and Sid Zackin, general manager, and director of purchasing.

York Quarter Nets $437,890

YORK, Pa.—For the quarter ending Dec. 31, 1948, York Corp. has reported a net profit of $437,890 as compared with $927,721 in the same period of 1947. Orders booked for the period, however, totaled $9,387,824 as compared with $9,358,085 for the like 1947 period.

North Central Electrical Group Plans Minneapolis Convention Feb. 27-Mar. 2

MINNEAPOLIS—Fifteen electrical organizations, coordinating their efforts through the North Central Electrical Industries will sponsor an electrical industry convention from Feb. 27 through March 2 in the Radisson hotel here.

Based on the theme that "new frontiers lie ahead" for the electrical industry, the convention will represent a combination of general sessions and entertainment features and meetings of the various individual groups represented in the N.C.E.I.

An all-industry merchandising meeting on the last afternoon of the convention will be headed by George Jensen, zone manager for the Nash-Kelvinator Corp.

Albert McNamee, special home appliance representative, *McCall's Magazine,* will speak at this session on the 1949 outlook under the heading: "Off Your Heels and On Your Toes."

Other speakers at this meeting will include Carl H. Christine, secretary manager of the St. Louis Electrical Board of Trade, who will discuss adequate wiring; and George S. Peterson, district manager of the electronics department, General Electric Co. at Chicago, who will talk on merchandising television.

At a meeting on rural electric equipment which will be held that morning, L. H. Hill of the Twin City Milk Producers Association, will discuss the farmer's reaction to electric water heating in the milk house.

Montgomery Ward Sales For January Down 10%

CHICAGO—January sales for Montgomery Ward & Co. were down 10% from January, 1948, and Sears. Roebuck & Co. sales for the same month were down 11.1%, officials from these mail order houses have reported.

This was the second time in the past three months when sales for the month at both firms dropped below those of the same month of the year before.

Reasons for the decline were cited as a drop in merchandise prices, severe weather conditions in some sections of the country, and consumer resistance, particularly in appliances and home goods. Both mail order business and retail stores of the firms shared the decline.

White Dealers To Get Rebates If Water Heater Prices Drop

MIDDLEVILLE, Mich.—Full price protection against all price cuts on the company's electric water heaters until July 30 is being given dealers by the White Products Corp. here, according to A. D. Vining, general sales manager.

If any price reductions should be made, dealers will receive rebates on merchandise in stock, he said.

Electromaster Appoints 6 Sales Representatives

MOUNT CLEMENS, Mich.—R. J. White, manager of distribution, Electromaster Inc., manufacturer of electric ranges, has announced the appointment of six special sales representatives for the eastern, midwest, south, and west coast areas.

These appointments are the first step in an expanded sales program, White said.

D. L. Kirk will cover Indiana, Kentucky, western Ohio, Michigan, Illinois, Wisconsin, and southeastern Missouri.

E. G. Kramer is assigned Minnesota, North Dakota, South Dakota, Wisconsin, Iowa, Nebraska, Kansas, Missouri, and Oklahoma.

E. R. Sigler will direct sales in western Pennsylvania, northeastern Ohio, northern New York, and northern West Virginia.

F. C. Stevenson will manage California, Washington, Oregon, Idaho, Nevada, Montana, Utah, Wyoming, Colorado, New Mexico, and Arizona.

V. L. Kilby will be responsible for sales in North and South Carolina, Georgia, Florida, Tennessee, Alabama, Mississippi, Louisiana, Arkansas, and Texas.

A. W. Roberts will direct sales in all New England states, eastern Pennsylvania, Maryland, West Virginia, Virginia, New Jersey, and southern New York.

NARDA Announces 7-Point Program To Include Talks with Manufacturers

CHICAGO—A seven-point program, dominated by the intention to consult with manufacturers on eight different subjects of interest to dealers, was revealed here recently by the National Appliance and Radio Dealers Association.

Besides these consultations, the program covered installation problems, discounts, business efficiency, rural markets, co-op taxation, and legislation.

The association wants to talk to manufacturers about franchises, costs of doing business, sales promotion, fair trade pricing, service costs, trading, security for the dealer position in distribution, and builder and multiple purchase sales.

On the subject of trade-ins, the association proposes discussions on:

"(A) Development of the most practical methods of handling trade-ins.

"(B) The conducting of market surveys to help dealers to more profitably dispose of trade-ins.

"(C) Consider the advisability of a Certified Used Appliance Program whereby trade-ins would be reconditioned in accordance with standards set forth by the industry.

"(D) To encourage use of the Official NARDA Trade-in Guide."

The association intends to tackle the high cost of installation by support of the adequate wiring program, setting up a program of pooling installations to a few contractors, promoting less restrictive city codes so that all approved methods and materials may be used, and working cooperatively with the National Electrical Contractors Association and the National Association of Master Plumbers to iron out difficulties between them and appliance retailers.

Under business efficiency, NARDA intends to "set up a 'department of business efficiency' to be headed by a competent marketing analyst, who will supervise a complete program of assistance to NARDA members, designed to improve their efficiency and thereby better enable them to meet the stiff competition of the future.

"This department will conduct regular Costs-of-Doing-Business Studies; develop workable ideas and plans to enable the dealer to improve customer relations; encourage more dealers to improve store appearance; and in general gather and disseminate factual information that will aid in improving the dealer's efficiency."

When franchise discussions are taken up with manufacturers, NARDA announced that it intends

"(A) To urge more manufacturers to examine their territories and franchise on the basis of an ample market for every dealer and a fully competent, adequately financed dealer for every market.

"(B) To urge franchise clause stating that no sales of the franchised product will be made to any group or individual except the franchised dealer.

"(C) To urge franchise clause providing a minimum 90-day price protection before new models are announced and to give all dealers opportunity to purchase factory overstock instead of dumping stock at reduced prices to one or a few large outlets.

"(D) To urge co-op advertising plans of manufacturers be more applicable to all sizes of dealers, and with consideration as to type of advertising best for dealer in respect to his location.

"(E) To vigorously encourage full dealer adherence to franchises, embodying these and other good provisions."

The consultations with manufacturers will be by "committees of well-informed dealers and association employes. Our approach to the manufacturers will be realistic, practical, and constructive", the program promised.

This is right

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